ART. IPSWI000A

iNEX BASIC

USER'S MANUAL

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Chapter 1 — Introduction

This manual describes installation and operation of iNEX Basic software, which is designed to be used with network video transmitters and network cameras.

1.1 Features

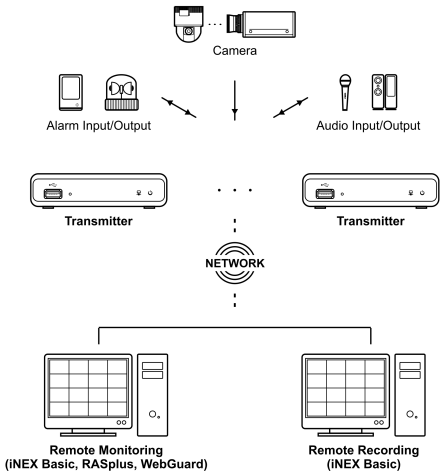
iNEX Basic is a software that controls video recording and monitoring from cameras connected to devices and playback of video recorded in the iNEX Basic system.

- Records video from up to 32 cameras
- Instant Recording of monitored images
- Remote monitoring of live camera images
- Remote software upgrades and system setup for device
- Display of system log information of devices
- Centralized system operation and management and event handling
- Decompression algorithm for H.264, MPEG-4 and M-JPEG
- Stable recording using proprietary video database file system
- Enhanced security using the SSL function
- Two-way audio communication
- Audio recording
- Enhanced security by setting up different authorities for each user group
- Intuitive GUI

NOTES:

- If the device is a four-channel network video transmitter, all four cameras are counted even if some of the four cameras are disabled, and four channels per network video transmitter are deducted from the number of channels available for recording.
- This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (*http://www.openssl.org/*).
- The software included in this product contains some Open Sources. You may obtain the complete corresponding source code from us. See the Open Source Guide on the software CD (*OpenSourceGuide**OpenSourceGuide.pdf*) or as a printed document included along with the User's Manual.

1.2 System Diagram



Chapter 2 — Installation

2.1 Product Information

Package Contents

- Installation CD (User's Manual on the CD)

System Requirements

Recommended System Requirements

- Operating System: Microsoft® Windows® XP/Vista x86 (32 Bit) (Home Basic, Business, Ultimate, Enterprise) or Microsoft® Windows® 7 x86 (32 Bit) (Home Premium, Professional, Ultimate)
- CPU: Intel Core II Quad 8200 2.33 GHz or faster
- RAM: 2GB or more
- VGA: ATI Radeon™ HD 3650 or NVIDIA GeForce 8400GS (ATI recommended) (1024x768, 24bpp or higher)
- Hard Disk Drive: 5 GB or more free space
- LAN: Gigabit Ethernet or faster

Minimum System Requirements

- Operating System: Microsoft® Windows® XP Home SP 3
- CPU: Intel Pentium IV 3.0 GHz or faster
- RAM: 1.5 GB or more
- VGA: ATI Radeon™ HD 2400 or NVIDIA GeForce FX5500 (ATI recommended) (1024x768, 24bpp or higher)
- Hard Disk Drive: 5 GB or more free space
- LAN: 10/100 Mbps Ethernet or faster

NOTE: It is recommended to add a new unformatted hard disk drive to ensure stable recording. If you are setting up a hard disk drive which contains data, however, you are to delete partition(s) and the file system in advance after formatting. Refer to the PC/server user's manual or consult with the PC/server manufacturer for details on how to format or delete the partition(s) and file system.

2.2 Installation

CAUTION: If an older version of iNEX software is installed on your computer, you should uninstall the older version first.

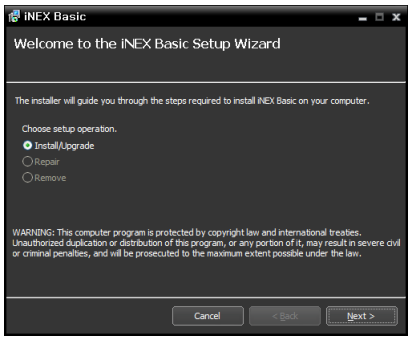
NOTE: In the Windows Start menu, go to *Control Panel*. Double click the *Power Options* to open the Management Properties dialog box. Under the *Power Schemes* tab, set both *Turn off monitor* and *Turn off hard disks* to *Never*.

1. Insert the software CD.

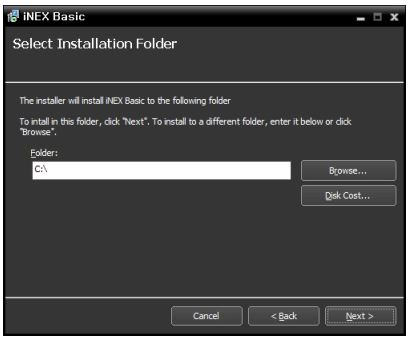
2. Run the setup.exe file.

NOTE: The *User Account Control* window might appear when using the Microsoft Windows Vista or later operating system. Click *Allow* and install the software following the instructions.

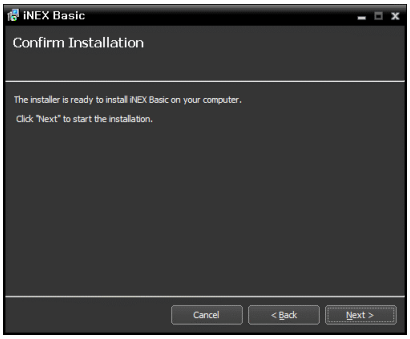
3. When the following screen appears, select Install/ Upgrade and click Next.

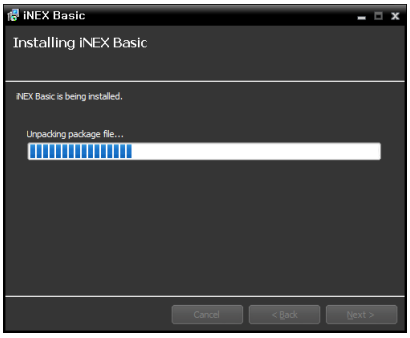

iNEX Basic
Welcome to the iNEX Basic Setup Wizard
The installer will guide you through the steps required to install iNEX Basic on your computer.
Choose setup operation.
Install/Upgrade
Repair
Remove
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

4. Designate the folder path to install the iNEX program and select the user(s) who will be allowed to use the iNEX program. Clicking the Disk Cost… button shows the available and required disk space for each hard disk drive for the installation. Then click Next.


iNEX Basic
Select Installation Folder
The installer will install iNEX Basic to the following folder
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\
Browse...
Disk Cost...
Cancel
< Back
Next >

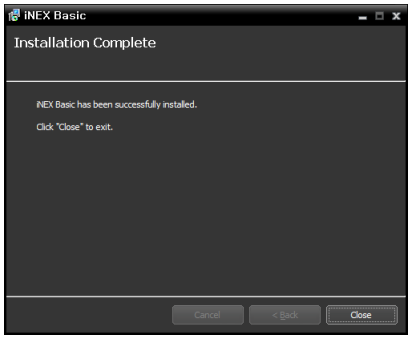
5. When the following screens appear, click Next.


iNEX Basic
Confirm Installation
The installer is ready to install iNEX Basic on your computer.
Click "Next" to start the installation.
Cancel
< Back
Next >



NOTE: *.NET Framework* and the *Visual C++ Runtime Libraries* are installed automatically, and it may take some time. This installation step will be skipped if the programs are already installed on your computer.

6. When the following screen appears, click the Close button to complete the installation.



NOTE: After successfully installing the software, the iNEX services and Service Manager (the icon is displayed in the notification area of the task bar) and Setup programs run automatically.

7. Select the language in which to run the program and then click OK.

NOTES:

- To properly display the selected language, your PC's operating system should be set to support the selected language.
- In order to change the iNEX program's language after the software has been installed, select *Language Selector* in the *iNEX Basic* → *Utility* folder of the *Start* menu before running the *iNEX* program.

2.3 Uninstall

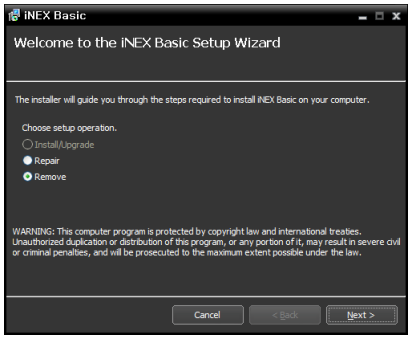
1. Stop running services, Setup and Client program first.

NOTE: The iNEX software might not be uninstall correclty if you uninstall it while the services or Client program is running.

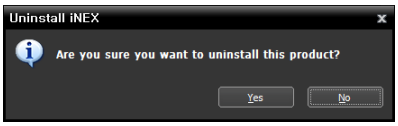
CAUTION: The iNEX software should be uninstalled following the procedures below. If you delete the installation folder manually, the iNEX software cannot be uninstalled or reinstalled.

2. Go to the Start Menu and click iNEX Basic. Click Uninstall iNEX Basic.

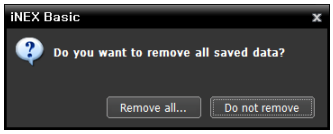
NOTE: You can uninstall the software by using the software CD. Insert the software CD in the PC and run the *Setup.exe* file. Select *Remove* and click *Next*.


iNEX Basic
Welcome to the iNEX Basic Setup Wizard
The installer will guide you through the steps required to install iNEX Basic on your computer.
Choose setup operation.
Install/Upgrade
Repair
Remove
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

3. Click Yes when the following screen appears.



4. Click the Remove All or Do not remove button when the following screen appears. Clicking the Remove All button deletes all saved data including recorded video and previous settings in the system. Clicking the Do not remove button uninstalls the software without deleting any saved data in the system and keeps all saved data in the system.



NOTE: The deleted data cannot be restored once the data is deleted.

5. Click the OK button to complete the uninstall process.

Chapter 3 — Getting Started

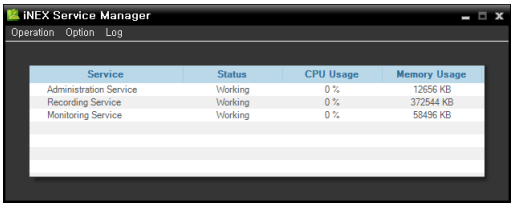
The iNEX software consists of Service Manager, Setup and Client programs, and services should be running on the iNEX system for the iNEX program to operate. Refer to Chapter 4 — System Overview (p. 15) for details about Service Manager, Setup and Client programs.

NOTE: In this manual, the "iNEX system" refers to a PC on which the iNEX program is running and a "device" refers to a network video transmitter or network camera.

3.1 Running Services

NOTE: A "service" in the iNEX program is a process that runs in the background and performs a specified operation.

When the iNEX software is installed, the services run automatically. You can also start or stop running the services manually. Go to the Start Menu → Click iNEX Basic → Run the Service Manager program.

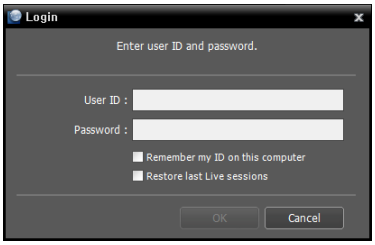


Check the status of services. If the services are not listed as Working under Status, start the services manually. Refer to Chapter 4 — System Overview, 4.1 Service Manager (p. 15) for details on the Service Manager program.

3.2 Log In

You are required to log in as follows when running the Setup and Client programs.

Go to the Start Menu → Click iNEX Basic → Run the iNEX Basic Setup or iNEX Basic Client program and enter login information.

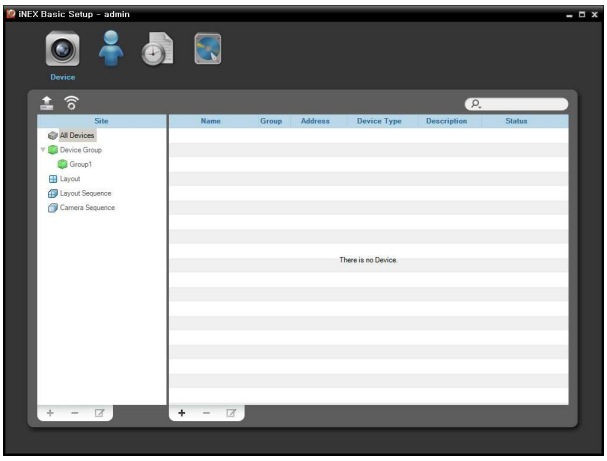


- User ID, Password: Enter your user ID and password. The default user ID is admin and default password is 12345678. You can change the user ID and password in the User menu. Refer to Chapter 12 — User Management (p. 79) for details.
- Remember my ID on this computer: Check the box if you want to save your ID for logging on.
- Restore last Live sessions: Check the box if you want to restore the previous live monitoring sessions in the current Live panels of the Client program (supported only for the Client program).

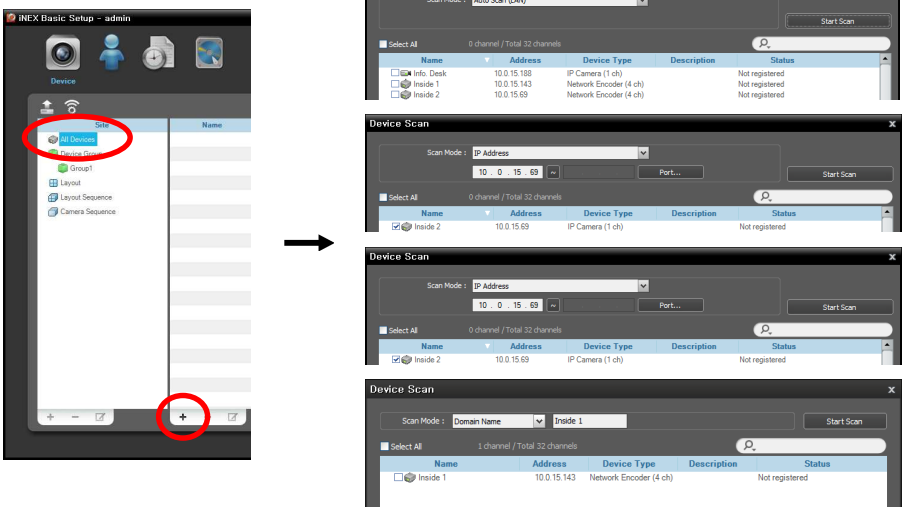
3.3 Registering Devices

You must register devices on the iNEX system and add the devices to a device group in order to perform any operation.

Go to the Start Menu → Click iNEX Basic → Run the iNEX Basic Setup program and enter login information → Select the Device menu, and then add devices to a device group following the procedures below.

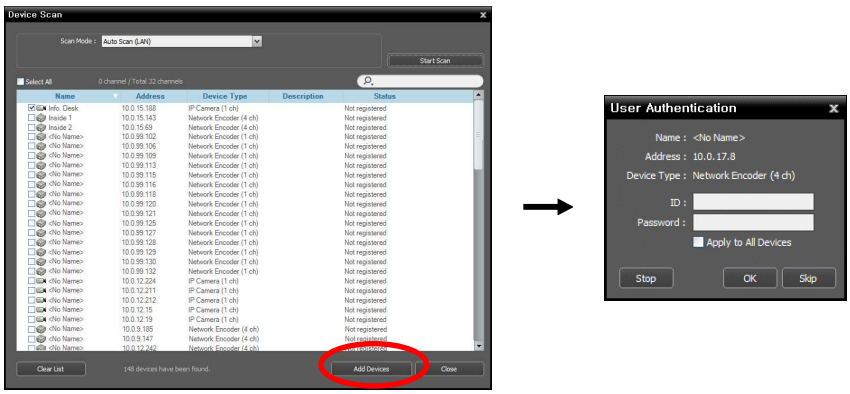


1. Click All Devices in the Site panel, and then the ✚ button at the bottom of the Site List panel. The Device Scan window appears.



- Scan Mode: Select the scan mode. Clicking the Start Scan button displays the results in the list. If the IP address range of the device is different from that of the iNEX system, the iNEX program considers the IP address invalid. In this case, you must change the device's IP address to register the device.
  - Auto Scan (LAN): Lists devices in a LAN environment.
  - IP Address: Allows you to enter the IP address of a device. You can search more than one device at a time by entering a range of IP addresses.
  - DVRNS: Allows you to enter the device name registered on a DVRNS server if the device uses the DVR Name Service function.
  - Domain Name: Allows you to enter the device's domain name registered on a DNS server if the device uses the domain name service.
- ☑ : Select the devices to register by checking the box beside each device name in the list. Selecting the Select All box selects all devices in the list.

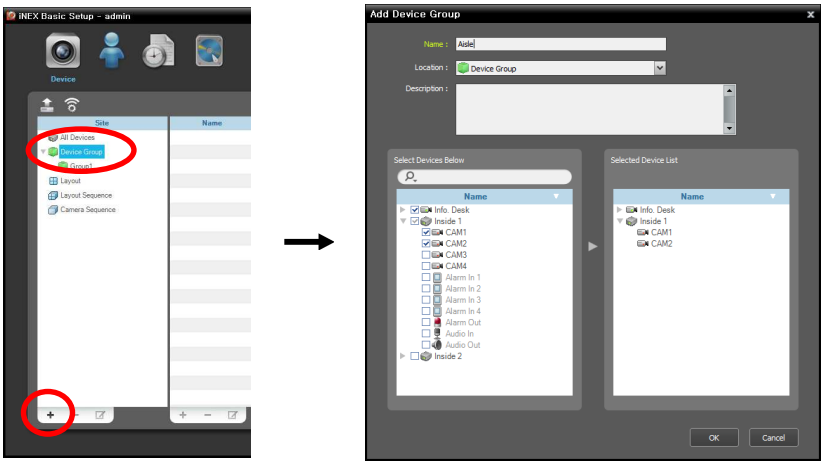
2. Click the Add Devices button at the bottom.



- Name, Address, Device Type: Displays the name, IP address (or mDNS number) and type of the selected device. The name will be updated automatically depending on the settings of the device.
- ID, Password: Enter the user ID and password which you set in the device in order to connect to that device remotely. The connection to the device is allowed only to the users under the Administrator group of the device, and recording is allowed only to the admin user under the Administrator group of the device.
- Apply to All Devices: Select to apply the same user ID and password to all selected devices if you selected more than one device and the selected devises have the same user ID and password

NOTE: When registering a four-channel network video transmitter, all four cameras are automatically registered even if some of the four cameras are disabled.

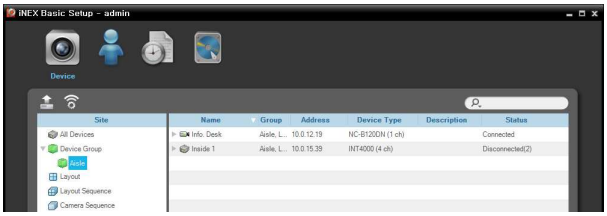
3. Click Device Group in the Site panel, and then the ✚ button at the bottom of the Site panel. The Add Device Group window appears.



- Name: Enter the device group name.
- Location: Select an upper group to which the device group will belong.
- Select Devices Below, Selected Device List: Check the box beside cameras in the left panel, and the selected cameras are added to the right panel.

Clicking the OK button completes the device group registration.

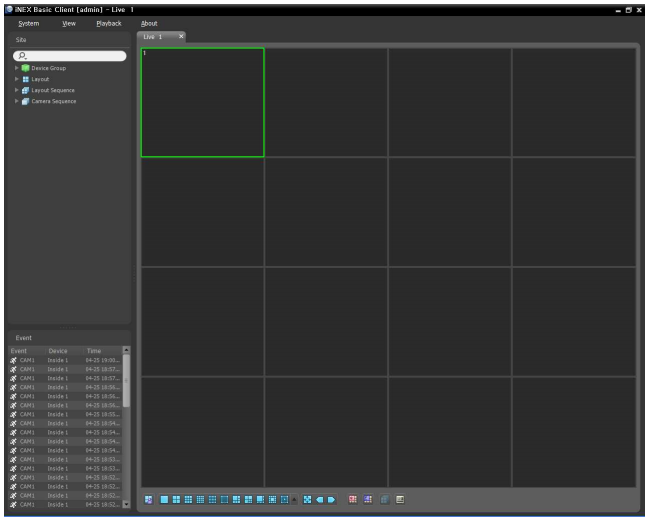
4. Check that the device was added to the device group correctly. Click Device Group in the Site panel and then the arrow button ( ) beside Device Group. Clicking the registered group displays the list of devices added to the device group and connection status in the Site List panel. If the connection is not made properly, the network disconnection log is displayed. Refer to Appendix – Network Disconnection Log (p. 83) for details about the network disconnection log.



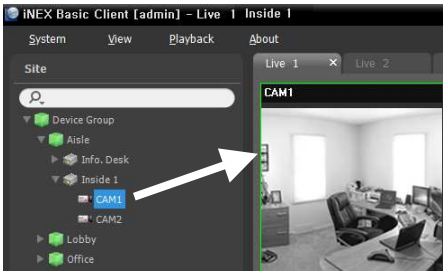
Selecting the registered device group, and then the button at the bottom of the Site List panel displays the Edit Device Group window and allows you to edit the selected device group. Refer to Chapter 11 — Device Management (p. 71) for details.

3.4 Live Video Monitoring

Go to the Start Menu → Click iNEX Basic → Run the iNEX Basic Client program and enter login information → Check that the devices were added to a device group in the Site list.



Click the Live tab on the tab panel → Select a site to connect to from the Site list, and drag and drop it on the Live screen. Live video from the selected site is displayed on the screen. Refer to Chapter 5 — Live Video Monitoring (p. 29) for details.



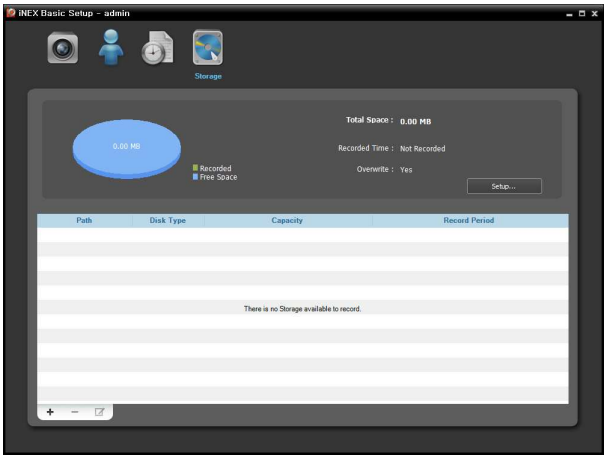
3.5 Recording

You have to allocate storage and set up recording schedule.

Go to the Start Menu → Click iNEX Basic → Run the iNEX Basic Setup program and enter login information → Check that the devices were added to a device group in the Device menu.

Allocating Storage

Select the Storage menu, and then allocate storage to hard disk drives following the procedures below. Refer to Chapter 6 — Recording, 6.1 Setting up Recording Storage (p. 29) for details.

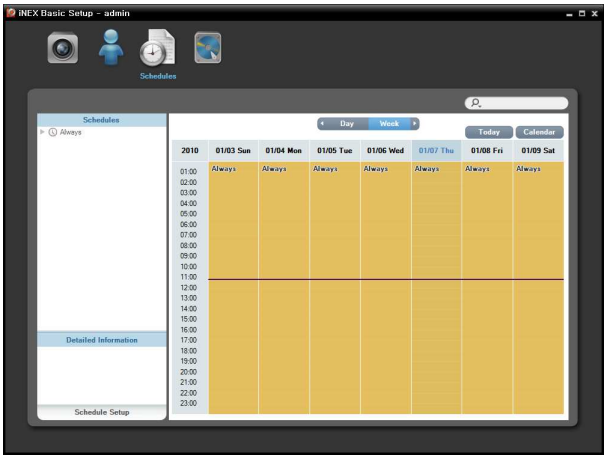


1. Click the ✚ button at the bottom. The Add Storage window appears, and the list of available hard disk drives is displayed with the information of the hard disk drives.

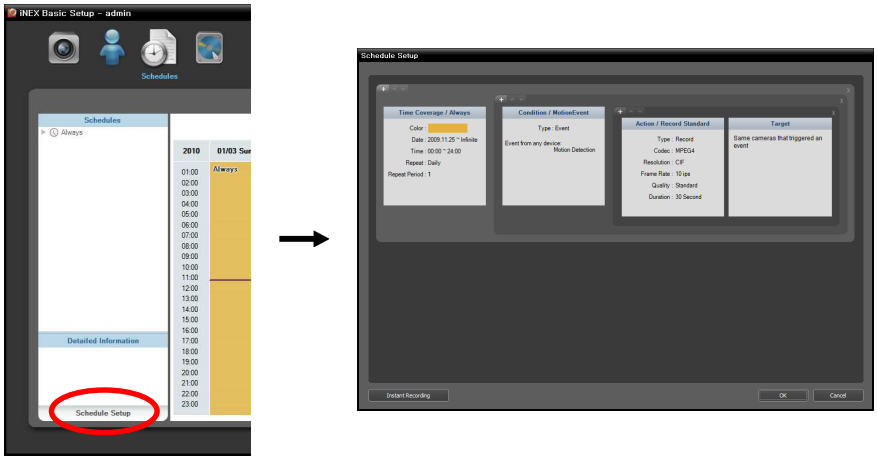
2. Select a hard disk drive from the list and click the Add button at the bottom. Allocate storage when the Allocate Storage window appears.

Setting up Recording Schedule

Select the Schedule menu and set up the recording schedule following the procedures below. Refer to Chapter 6 — Recording, 6.2 Setting up Recording Schedule (p. 29) for details.



1. Click the Schedule Setup button at the bottom. The Schedule Setup window appears, and schedule windows are displayed with the current settings for each Preset.

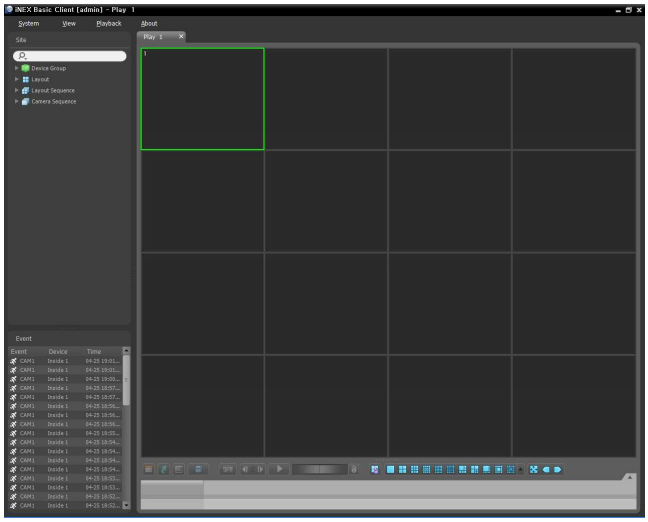


2. Double click anywhere in the empty space of each schedule window, and the Preset setup window appears.

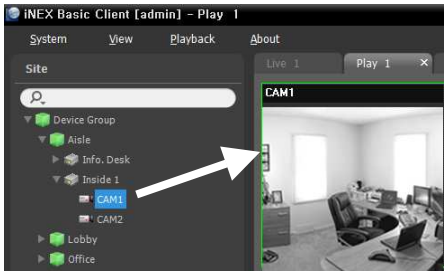
3. Select a desired Preset from the Preset list, or click the + button to add a new Preset. Selecting a Preset from the list and clicking the − or ✎ button deletes the selected Preset or allows you to edit the selected Preset settings. Clicking the OK button applies the settings.

3.6 Playing Recorded Video

Go to the Start Menu → Click iNEX Basic → Run the iNEX Basic Client program and enter login information → Check that the devices were added to a device group in the Site list.



Click the Play tab on the tab panel → Select a site to connect to from the Site list, and then drag and drop it on the Play screen. Recorded video from the selected site is displayed on the screen. You can search and play back recorded video by using the panel toolbar and timetable at the bottom of the Play panel. Refer to Chapter 7 — Recorded Video Playback & Exportation (p. 53) for details.



Chapter 4 — System Overview

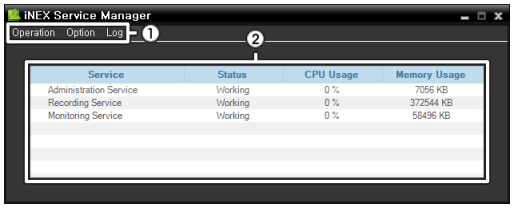
The iNEX software consists of the following programs:

- Service Manager: Controls the operation of services (Administration Service and Recording Service) or displays system log. Refer to 4.1 Service Manager (p. 15) for details.
- Setup: Allows you to add devices and users, or set up recording schedule and storage. Refer to 4.2 Setup (p. 17) for details.
- Client: Allows you to monitor video from registered cameras, play back video recorded video from storage, export recorded video and check the system log and devices' status Refer to 4.3 Client (p. 21) for details.

NOTE: The following Utility programs are provided (Go to the *Start* Menu → Click *iNEX Basic* and then *Utility*).
− ProblemReport, SecretKey: You will use them following the directions of your dealer or distributor when your dealer or distributor requests.

4.1 Service Manager

Services should be running on the system to operate the iNEX program. Go to the Start Menu → Click iNEX Basic → Run the Service Manager program.



① Menu: Allows you to control the operation of the services or display the system log.

② Status Display: Displays the status of services.

Menu

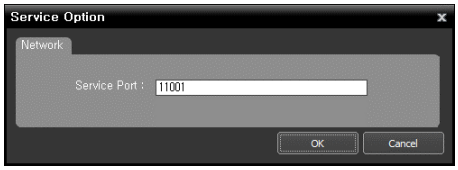
- Operation: Starts or stops all services. When the services are stopped, you cannot run the Setup and Client programs, and the system does not record. If you have changed any settings of the Service Manager program, stop and restart the services to apply the changes.
- Option.
  − Server Option: Changes the Watchdog settings

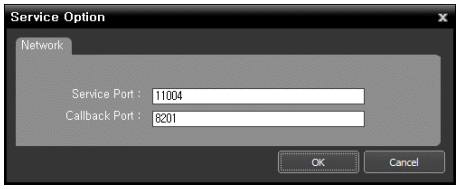
- Timeout (Min.): Set up the waiting time to restart services when services fail to operate. The iNEX system checks the system status. When the services fail to operate during the designated waiting time, the system restarts services automatically based on the reboot condition setting below.

- Reboot Condition: Set up the reboot condition when services fail to operate. Checking the Do Not Reboot Server option allows the system to restart services without rebooting.

NOTE: "Watchdog" in the iNEX program is a function that periodically checks the operation of iNEX services and restarts services automatically when services fail to operate during the predefined time.

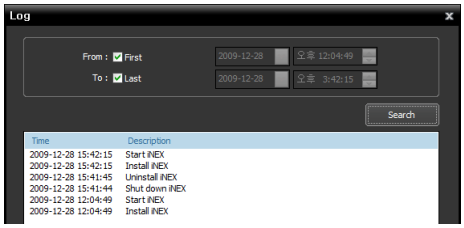
- Service Option: Selecting a service from the service list and Service Option allows you to set up the information for connection to the selected service.





  - Service Port: Enter the port number for connection to the service.
  - Callback Port: Enter the port number to receive a callback message from the device. The port number you enter should match the port number set on the device for remote callback.

- Log: Selecting Show Log allows you to check and search the system log.



Setting up the time range of the log and clicking the Search button displays the log information. Selecting First displays from the oldest log entries regardless of date. Selecting Last displays to the newest log entries regardless of date.

Status Display

- Service: Displays the list of services supported by the iNEX system.
  - Administration Service: Manages information of devices, users and schedules for operating the iNEX program. When the administration service is not working, the iNEX program does not work.
  - Recording Service: Records video transmitted from the device. When the recording service is not working, the iNEX program does work but the system will not record.
  - Monitoring Service: Notifies live events and callback events detected at the device registered in the administration service to the Client system.
- Status: Displays the working status of each service.
  - Working: Indicates the program is working properly. You can operate the Setup and Client programs, and the system performs recording based on the recording schedule.
  - Stopped: Indicates the program was stopped by a user. You cannot operate the Setup and Client programs, and the system does not perform recording.
  - Failed: Indicates the program failed to run because of an unknown problem. The system restarts the services or reboots the system based on the Watchdog settings. Refer to Menu (p. 15) for details on Watchdog settings.
- CPU Usage: Displays the CPU usage of each service.

- Memory Usage: Displays the memory usage of each service.

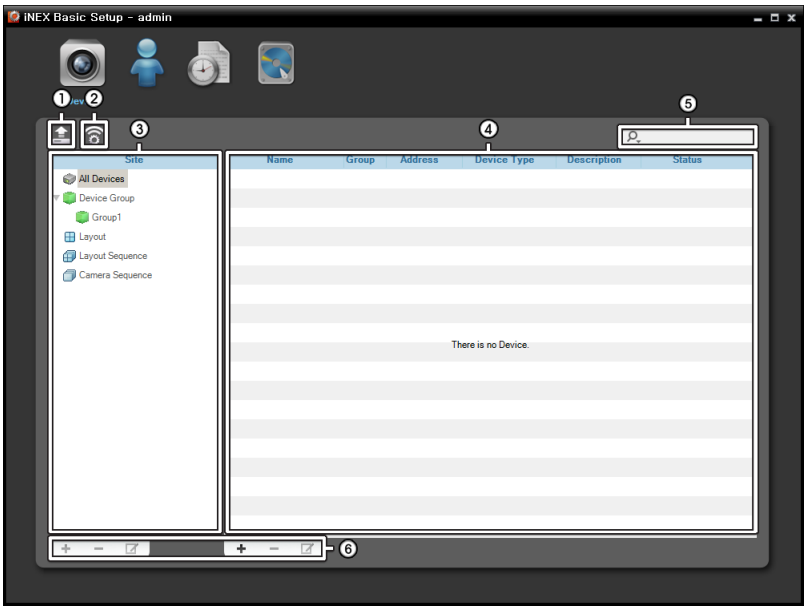
4.2 Setup

Go to the Start Menu → Click iNEX Basic → Run the iNEX Basic Setup program and enter login information. Refer to Chapter 3 — Getting Started, 3.2 Log In (p. 7) for details about the login.

- Device: Allows you to register and manage sites. Refer to Device (p. 17) for details.
- User: Allows you to register and manage users or user groups. Refer to User (p. 19) for details.
- Schedule: Allows you to set up recording schedules. Refer to Schedule (p. 20) for details.
- Storage: Allows you to allocate and manage storage. Refer to Storage (p. 21) for details.

Device

The Device menu allows you to register and manage sites.



① (Multiple Firmware Upgrade): Allows you to upgrade software for several devices at the same time. Refer to Chapter 11 — Device Management, 11.2 Managing Devices, Upgrading Device's Software (p. 75) for details.

② (Multiple Remote Setup): Allows you to change settings of several devices at the same time using a setup file. Refer to Chapter 11 — Device Management, 11.2 Managing Devices, Changing Device's Setting Remotely (p. 75) for details.

③ Site Panel: Displays site group lists supported by the iNEX program.

④ Site List Panel: Displays the list and information about sites registered in each group. If a connection is not working properly, the network disconnection log is displayed. Refer to Appendix – Network Disconnection Log (p. 83) for details on the network disconnection log. Clicking the arrow button ( ) beside each device name displays the status of video in, alarm in/out and audio in/out supported by the device (Record: During Time-Lapse recording or Event-Based recording, Panic: During Instant recording, Idle: Ready to record).

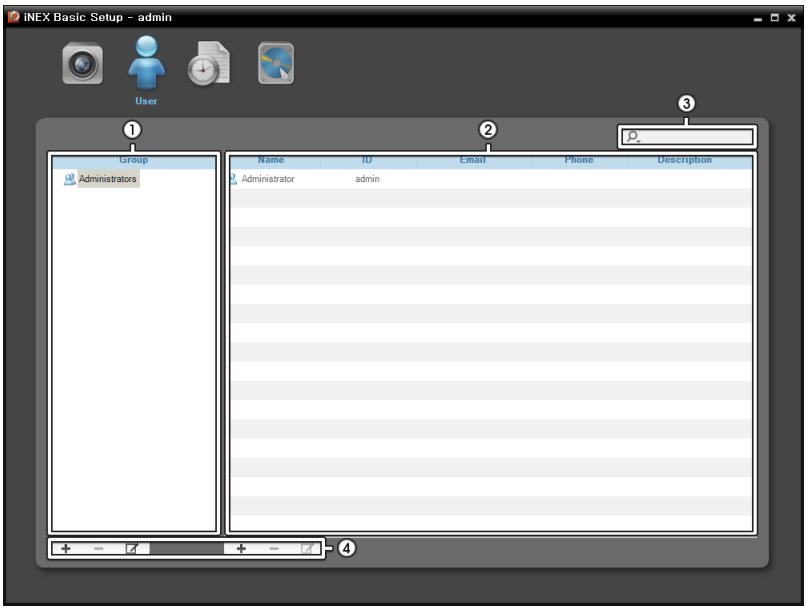
⑤ (Incremental Search): Allows you to search for a device or site registered in each group. Selecting a group in the Site panel and entering text that you want to search for causes the search results to be displayed. Search results are displayed immediately as matching text is found within the selected group. As you enter more text, the results narrow.

⑥ ✚ (Add), ━ (Remove), (Edit): Allow you to add, remove and edit a device or a site. You can also delete sites from the group or to edit registration information by using the menu that is displayed when selecting a site and clicking the right mouse button. If you select a device, you can connect to it and change its settings or upgrade its software remotely. If you delete a device from All Devices, it will not be available to search and play back previously recorded data for the device even though the device is registered again. Refer to Chapter 11 — Device Management (p. 71) for details on registering a device or device group, or Chapter 5 — Live Video Monitoring (p. 29) for details on registering a layout or sequence.

NOTE: In this manual, a "site" refers to a device group, layout or sequence registered on the iNEX system.

User

The User menu allows you to register and manage users or user groups.



① Group Panel: Displays a user group list. The Administrators group has authority to perform all functions, and the authority settings cannot be edited.

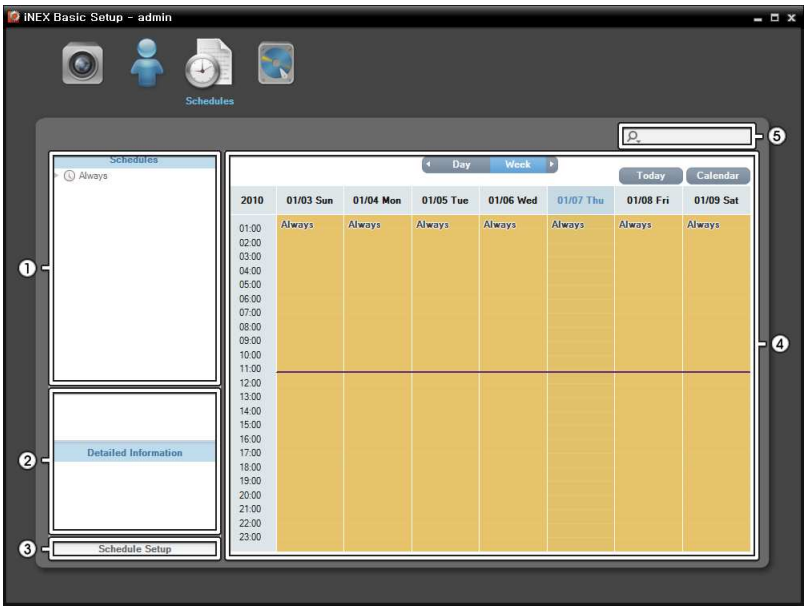
② User List Panel: Displays the list and information about users registered in each group.

③ (Incremental Search): Allows you to search for a user registered in each group. Selecting a group in the Group Panel and entering text that you want to search for causes the search results to be displayed. Search results are displayed immediately as matching text is found within the selected group. As you enter more text, the results narrow.

④ ✚ (Add), ━ (Remove), (Edit): Allow you to add, remove and edit a user group or user.

Schedule

The Schedule menu allows you to set up the schedule for recording.



① Schedule Panel: Displays a registered schedule list. The iNEX system performs recording based on the schedule.

② Detailed Information Panel: Displays setting values of the selected recording schedule.

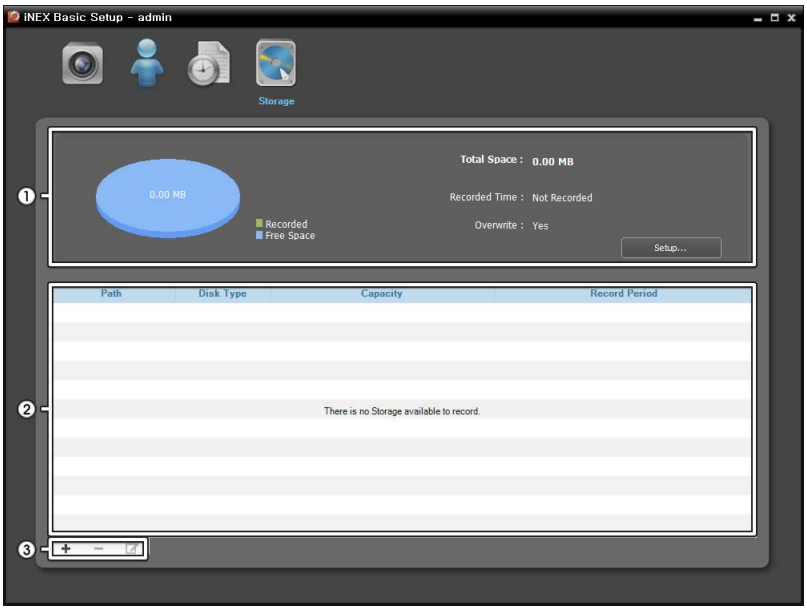
③ Schedule Setup: Allows you to register recording schedules for Time-Lapse Recording or Event-Based Recording or to set up recording settings for Instant Recording. Refer to Chapter 6 — Recording, 6.2 Setting up Recording Schedule (p. 42) for details.

④ Schedule Table: Displays the current recording schedule by day or week. Clicking the Today button displays the today's recording table. Clicking the Calendar button displays a calendar.

⑤ (Incremental Search): Allows you to search for a registered schedule. Entering text that you want to search for causes the search results to be displayed. Search results are displayed immediately as matching text is found within the registered schedule. As you enter more text, the results narrow.

Storage

The Storage menu allows you to allocate or set up the recording storage.



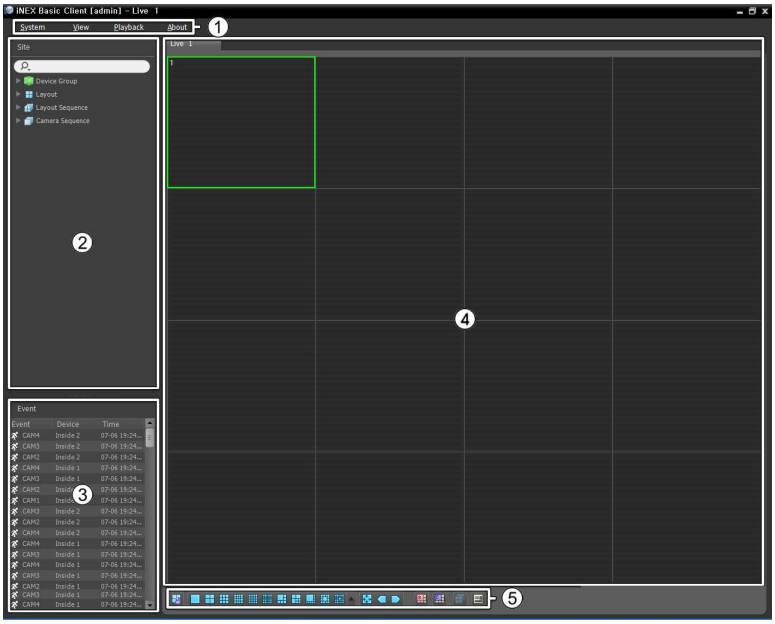
① Storage Usage Information: Displays the storage usage information.
- Total Space: Displays the total amount of storage allocated to the iNEX system.
- Recorded Time: Displays the time of the first last recorded video in the iNEX system.
- Setup: Clicking the button displays the Storage Setup window. Refer to Chapter 6 — Recording, 6.1 Setting up Recording Storage (p. 39) for details.

② Storage List: Displays list and information of storage.

③ ✚ (Add), ━ (Remove), (Edit): Allow you to add, remove and edit a storage. Refer to Chapter 6 — Recording, 6.1 Setting up Recording Storage (p. 39) for details.

4.3 Client

Go to the Start Menu → Click iNEX Basic → Run the iNEX Basic Client program and enter login information. Refer to Chapter 3 — Getting Started, 3.2 Log In (p. 7) for details about the login.



① Menu: Allows you to control the Client program. Refer to Menu (p. 22) for details.

② Site List: Allows you to connect to the registered site by using the mouse to drag and drop. Refer to Site List (p. 24) for details.

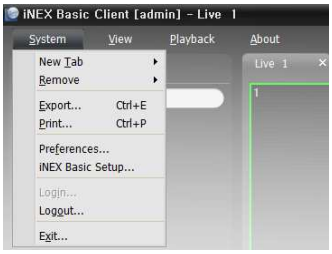
③ Instant Event List: Displays the live events or callback events from the registered devices. Refer to Chapter 8 — Event Handling (p. 63) for details.

④ Panel: Allows you to select which panel to use. Refer to Panel (p. 24) for details.

⑤ Panel Toolbar/Timetable: Displays the toolbar or timetable depending on the panel. Refer to Chapter 5 — Live Video Monitoring (p. 29) or Chapter 7 — Recorded Video Playback & Exportation (p. 53) for details.

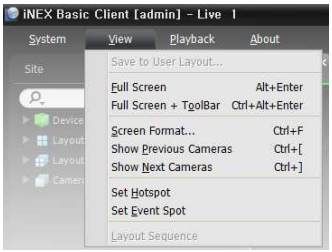
Menu

System



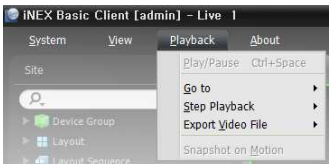
- New Tab: Adds panels (maximum of 4 for Live panels and maximum of 2 for Play panels).
- Remove: Removes selected devices or cameras or all cameras from Live or Play screen.
- Export, Print: Exports or prints images or lists displayed on the panel on the selected tab (not supported for all panels).
- Preference: Displays the Preference window allowing you to change the basic settings of the Client program. Refer to Menu – Preference Settings (p. 25) for details.
- iNEX Basic Setup: Runs the Setup program.
- Login, Logout, Exit: Logs in, logs out or exits the Client program.

View



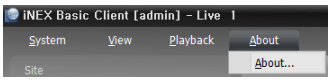
- Save to User Layout: Saves the current screen format.
- Full Screen: Displays the selected Live or Play panel in full-screen format.
- Full Screen+Toolbar: Displays the selected Live or Play panel in full-screen format with the panel toolbar.
- Screen Format: Allows you to change the screen format.
- Show Previous Cameras, Show Next Cameras: Moves to the previous or next camera group.
- Set Hotspot: Sets up a selected camera screen as a hotspot screen. Refer to Chapter 5 — Live Video Monitoring, 5.1 Monitoring Video, Hotspot Setup (p. 30) for details.
- Set Event Spot: Sets up a selected camera screen as an event spot screen. Refer to Chapter 5 — Live Video Monitoring, 5.1 Monitoring Video, Event Spot Setup (p. 30) for details.
- Layout Sequence: Starts or stops the layout sequence. Refer to Chapter 5 — Live Video Monitoring, 5.1 Monitoring Video, Layout Sequence Monitoring (p. 32) for details.

Playback



- Play/Pause: Plays or pauses playback of recorded video.
- Go To: Selects a specific point of video to be played. Refer to Chapter 7 — Recorded Video Playback & Exportation, 7.1 Playing back Recorded Video, Panel Toolbar (p. 54) for details.
- Step Playback: Moves the video forward or backward in the frame or time unit.
- Export Video File: Exports recorded video as a self-player file (.exe) or an AVI file (.avi).
- Snapshot on Motion: Displays snapshot of images recorded during the event-based recording (event and pre-event) in the Play panel. Refer to Chapter 7 — Recorded Video Playback & Exportation, 7.1 Playing back Recorded Video, Snapshot on Motion Event (p. 56) for details.

About



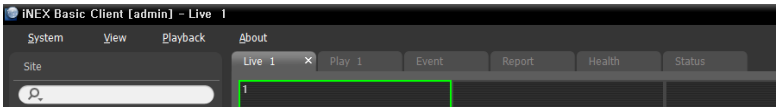
- About: Displays the software version and copyright information.

Site List

Displays the list of registered sites.

- (Incremental Search): Allows you to search for a registered device or site. Entering text that you want to search for causes the search results to be displayed. Search results are displayed immediately as matching text is found. As you enter more text, the results narrow.
- Device Group: Displays the list of registered device groups. Clicking a device in the list, and dragging and dropping it in the desired location on the screen allows you to monitor video from the cameras connected to the device or to play back recorded video of the cameras. Refer to Chapter 5 — Live Video Monitoring, 5.1 Monitoring Video (p. 29) or Chapter 7 — Recorded Video Playback & Exportation, 7.1 Playing back Recorded Video (p. 53) for details.
- Layout: Displays the list of registered layouts. Clicking a layout in the list, and dragging and dropping it on the screen starts layout monitoring or playback. Refer to Chapter 5 — Live Video Monitoring, 5.1 Monitoring Video, Layout Monitoring (p. 31) or Chapter 7 — Recorded Video Playback & Exportation, 7.1 Playing back Recorded Video (p. 53) for details.
- Layout Sequence: Displays the list of registered layout sequences. Clicking a layout sequence in the list, and dragging and dropping it on the screen starts layout sequence monitoring. Refer to Chapter 5 — Live Video Monitoring, 5.1 Monitoring Video, Layout Sequence Monitoring (p. 32) for details.
- Camera Sequence: Displays the list of registered camera sequences. Clicking a camera sequence in the list, and dragging and dropping it in the desired location on the screen starts camera sequence monitoring. Refer to Chapter 5 — Live Video Monitoring, 5.1 Monitoring Video, Camera Sequence Monitoring (p. 34) for details.

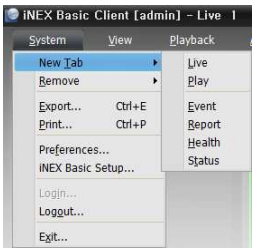
Panel



- Live: Displays live images. Refer to Chapter 5 — Live Video Monitoring (p. 29) for details.
- Play: Allows you to play back the recorded video. Refer to Chapter 7 — Recorded Video Playback & Exportation (p. 53) for details.
- Event: Displays the list of events recorded during Event recording. Double clicking an event in the event list, or selecting an event in the event list and then clicking the right mouse button allows you to play back event-recorded video and event-associated video in the play screen. Refer to Chapter 7 — Recorded Video Playback & Exportation (p. 53) for details.
- Report: Displays log entries. Refer to Chapter 10 — Log Search (p. 69) for details.
- Health: Displays the results of self-diagnostics for the devices in a device group. Refer to Chapter 9 — System Health & Status Monitoring, 9.1 Health Monitoring (p. 67) for details.
- Status: Displays the status of a desired device in real-time. Refer to Chapter 9 — System Health & Status Monitoring, 9.2 Status Monitoring (p. 68) for details.

NOTE: You can change the panel name by clicking the right mouse button on each panel tab.

Adding/Deleting Panel



Go to the System menu → Click New Tab → Select a panel to add.

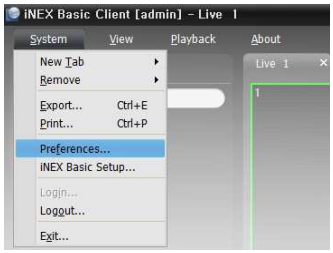
Clicking the ☒ button beside each tab deletes the panel.

Floating/Docking Panel

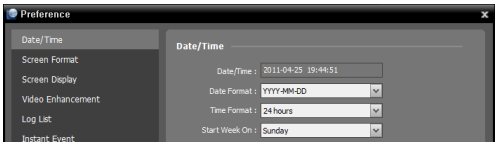
Clicking a panel tab causes it to fly out and dragging it floats the panel on the screen. Clicking the tab of a floating panel, and dragging and dropping it to its original position docks the panel. You can change the order of panel tabs by dragging and dropping with the mouse.

Menu – Preference Settings

You can set the basic settings of the Client program to meet your preferences. Go to the System Menu → Click Preference, and the Preference window appears.

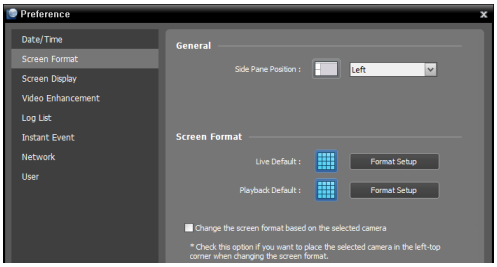


Date/Time



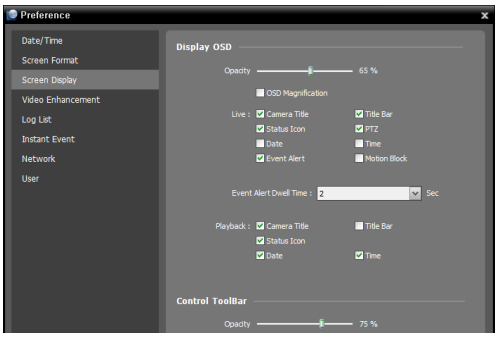
- Date/Time: Displays the current date and time.
- Date Format, Time Format: Set up the system date/time format.
- Start Week On: Set up the day of the week to start.

Screen Format



- Side Pane Position: Set up the position of side panels.
- Live Default, Playback Default: The default screen formats for the Live and Play screen are displayed. Clicking the Format Setup button allows you to change the default screen format.
- ☑ Change the screen format based on the selected camera: Displays video from a camera selected from the current screen format in the first camera screen of the new screen format when you change screen formats.

Screen Display



- Display OSD: Sets up the OSD display setting and information to be displayed on a camera screen. The Opacity slide bar allows you to adjust the opacity of OSD (On Screen Display), OSD Magnification changes the OSD size depending on the screen size. See below about OSD information.
  - ☑ Camera Title: Displays the camera name set in the iNEX system.
  - ☑ Title Bar: Separates the title display area from an image display area at the top.
  - ☑ Status Icon: Displays status OSD. (● (Red): During Time-Lapse or Event-Based recording, ● (Orange): During Instant recording, P: In the PTZ mode, ▣: In the camera sequence mode, ⊕: In the zoom mode, 🔊: In the two-way audio communication mode)
  - ☑ PTZ: Displays direction control buttons which is displayed on the camera screen when controlling a PTZ camera.
  - ☑ Date, ☑ Time: Displays the date and time of the iNEX system.
  - ☑ Event Alert: Highlights the camera title bar in red when an event occurs in the device. The alert will release after the event dwell time (sec.) from the time an event is detected or when you select the camera screen if you set up the Event Alert Dwell Time setting to Manual Off.
  - ☑ Motion Block: Displays the area whether motion is detected with red blocks when a motion detection event occurs in the device (Network Video Transmitter connection only).
- Control Toolbar: Adjusts the opacity of the control toolbar on the camera screen.

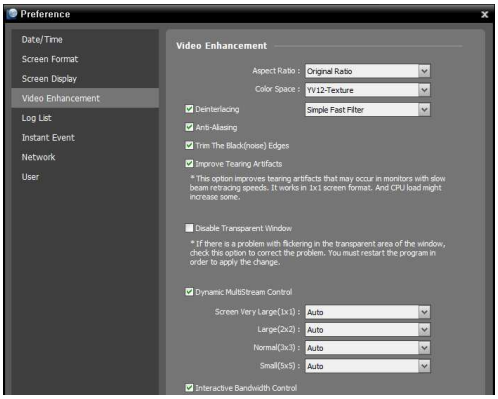
Camera Title, Status Icon, Date/Time

Event Alert

Motion Block

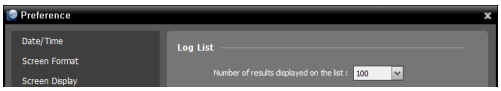
Control Toolbar

Video Enhancement


Preference
Date/Time
Screen Format
Screen Display
Video Enhancement
Log List
Instant Event
Network
User
Video Enhancement
Aspect Ratio : Original Ratio
Color Space : YV12-Texture
Deinterlacing
Simple Fast Filter
Anti-Aliasing
Trim The Black(noise) Edges
Improve Tearing Artifacts
* This option improves tearing artifacts that may occur in monitors with slow beam retracing speeds. It works in 1x1 screen format. And CPU load might increase some.
Disable Transparent Window
* If there is a problem with flickering in the transparent area of the window, check this option to correct the problem. You must restart the program in order to apply the change.
Dynamic MultiStream Control
Screen Very Large(1x1) : Auto
Large(2x2) : Auto
Normal(3x3) : Auto
Small(5x5) : Auto
Interactive Bandwidth Control

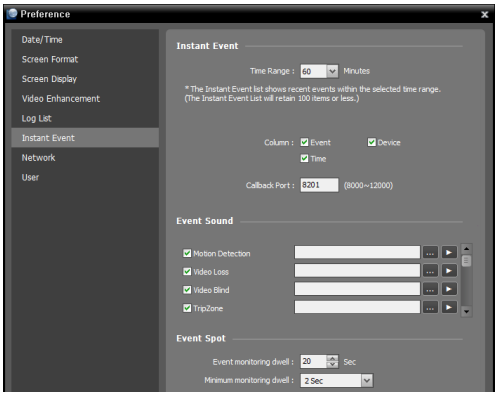
- Aspect Ratio: Select the proper image aspect ratio.
  - Original Ratio: Displays images by fitting them within the screen size while maintaining their original ratio.
  - Fit to Screen: Displays images by fitting them to the screen size regardless of the aspect ratio.
  - Fit to Screen (Aspect Ratio): Fits images to the screen size keeping the aspect ratio. This might cause top and bottom or left and right side of images to be cropped depending on the screen size. This aspect ratio is not supported and Original Ratio is applied for camera screens that the following functions are activated: Image Zoom, Hotspot, Event Spot, Draw Motion Block.
  - Actual Size (x1): Displays images in their original size.
- Color Space: Select the color space standard to display video on the screen. The color quality or display performance of video might be affected depending on the color space standard selected.
- ☑ Deinterlacing: Enhances image display quality of interlaced video on the screen by eliminating horizontal scan lines or noise in areas with motion. Select the desired deinterlace filter.
- ☑ Anti-Aliasing: Enhances image display quality of video on the screen by eliminating stair-stepping (aliasing) effects in the enlarged image.
- ☑ Trim The Black(noise) Edges: Trims the black line (noise) displayed at the edge of the image.
- ☑ Improve Tearing Artifact: Improves tearing artifact caused when the monitor's scanning line retracing speed is slow (1x1 screen format only). This might increase the CPU load.
- ☑ Disable Transparent Window: Disables using a transparent window style and opacifies windows including the control toolbar to correct the problem of transparent areas of the window flickering. The change will be applied the next time the program is run.
- ☑ Dynamic Multistream Control: Allows you to use a different stream depending on the screen format (supported only for devices in which more than one stream is used). Selecting Auto allows the iNEX program automatically to choose the proper stream based on the screen format.
- ☑ Interactive Bandwidth Control: Controls the network bandwidth by automatically adjusting the resolution and the frame rate of the device depending on a screen format (1x1 screen format: the maximum resolution and frame rate supported by the device, Multi-screen format: the resolution and frame rate decreased to an appropriate level for each screen format). This function enhances the network bandwidth efficiency and decreases a drop in performance of the iNEX system which might be caused by the network congestion. For this function to work, the device must be also set up to use the function. This function works only for monitoring video.

Log List



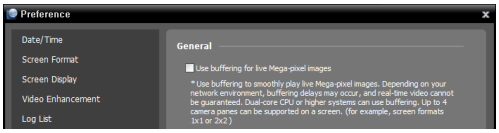
Set up the number of log entries to be displayed at a once (in the case of Device Log, maximum 100 logs at once regardless of the setting).

Instant Event



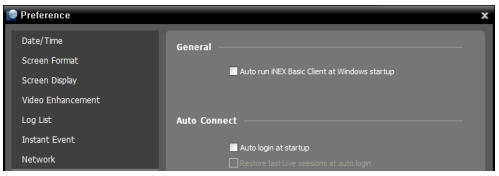
- Time Range: Set up the length of time for an event notification to be displayed in the Live Event List after notification of the event detection (The event list will remain on the live Event List even if the time has expired if the event list has 100 or fewer items).
- Column: Select the information to be displayed in Live Event List.
- Callback Port: Set up the port number to receive a callback message from the device. The port number you enter should match the port number set on the device for remote callback.
- Event Sound: Set up to sound by playing back an audio file when an event is detected. Select a desired event and set up an audio file (.wav) by clicking the ... button. Clicking the ▶ button allows you to test the sound by playing back the selected audio file.
- Event Spot: Set up the duration for images to be displayed on an event spot screen when an event is detected. When another event is detected while the current event is displayed on the event spot screen, the current event is displayed during the minimum monitoring dwell time and another event is displayed.

Network


Preference
Date/Time
Screen Format
Screen Display
Video Enhancement
Log List
General
Use buffering for live Mega-pixel images
* Use buffering to smoothly play live Mega-pixel images. Depending on your network environment, buffering delays may occur, and real-time video cannot be guaranteed. Dual-core CPU or higher systems can use buffering. Up to 4 camera panes can be supported on a screen. (for example, screen formats 1x1 or 2x2)

- ☑ Use buffering for live Mega-pixel images: Displays images on the screen more smoothly by using buffering when monitoring mega-pixel video images. Buffering may be delayed or real-time monitoring may decrease depending on the network environment. This function is supported only in a dual-core CPU or higher systems for up to four cameras in each Live panel.

User



- Auto run iNEX Client at Windows startup: The Client program automatically runs when logging onto Windows.
- ☑ Auto login at startup: The Client program automatically logs in with the login information from the previous connection when it starts. Checking the Restore last Live sessions at auto login box restores the previous live monitoring sessions in the current Live panels.

Chapter 5 — Live Video Monitoring

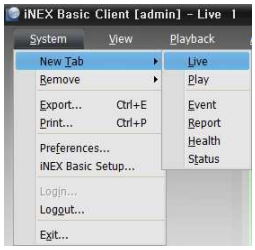
You can monitor live video of each group. The iNEX system displays video from the devices based on the settings in the device on the Live screen.

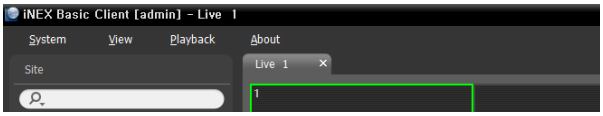
First, check the following and run the Client program.

- Services should be running in the system. Refer to Chapter 3 — Getting Started, 3.1 Running Services (p. 7) for details.
- Devices should be added to a device group. Refer to Chapter 11 — Device Management (p. 71) for details.

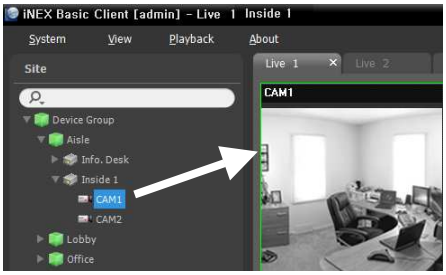
5.1 Monitoring Video

Live video monitoring is supported in the Live panel (max. 4). If the Live tab is not on the tab panel, go to the System menu, and click New Tab, and then Live.





Click the Live tab on the tab panel → Select a camera, device or device group from the Site list, and drag and drop it on the Live screen. Live video from each camera is displayed on the screen. You can move a camera screen to the desired location on the Live screen without disconnecting the current connection while monitoring video. Select a camera screen and drag and drop it on the desired location.



NOTE: The iNEX system performance might seriously deteriorate when simultaneously monitoring or playing back video with 1280x720 or higher resolution on more than one camera screen.

Panel Toolbar

The toolbar at the bottom allows you to control the Live panel.

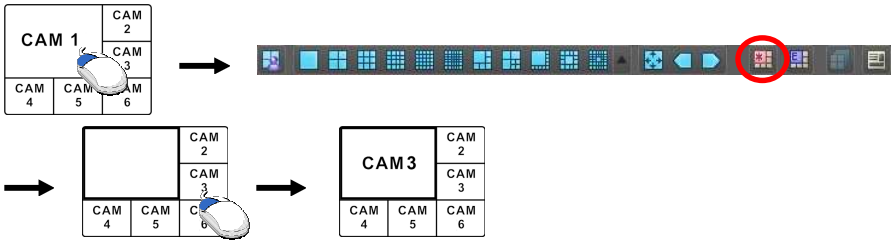
- (Save to User Layout): Saves the current screen format.

- (Screen Format): Changes the screen format. Clicking the button displays more available screen formats. Clicking the or button moves to the previous or next camera groups.
- (Layout Sequence): Starts or stops layout sequence. Refer to 5.1 Monitoring Video, Layout Sequence Monitoring (p. 32) for details.
- (Hotspot): Sets up a selected camera screen as a hotspot screen. Refer to Hotspot Setup (p. 30) for details.
- (Event Spot): Sets up a selected camera screen as an event spot screen. Refer to Event Spot Setup (p. 30) for details.
- (Export/Print Image): Allows you to export or print the images currently displayed on the screen.

Hotspot Setup

NOTE: The "hotspot" in the iNEX program is a predefined camera screen in which video from any camera among those currently displayed can be monitored with emphasis. The hotspot screen is surrounded by a red outline.

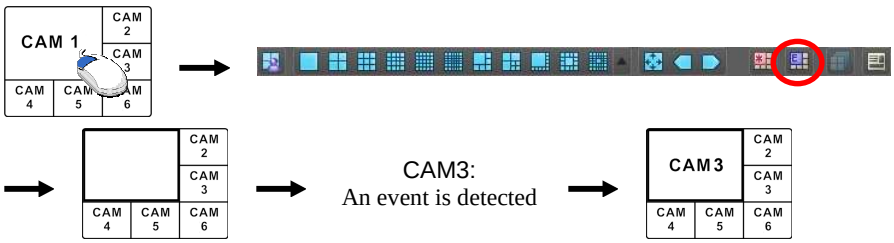
1. Select a camera screen to set up as a hotspot screen on the current monitoring screen.
2. Click the (Hotspot) button on the toolbar at the bottom of the Live panel, and the current connection in the selected camera screen is released. The hotspot screen is surrounded by a red outline.
3. Select any camera on the screen. Video from the selected camera is displayed on the hotspot screen, and you can control the camera.



Event Spot Setup

NOTE: The "event spot" in the iNEX program is a predefined camera screen in which video from a camera which an event is detected among cameras currently displayed can be monitored with emphasis. The event spot screen is surrounded by a blue outline.

1. Select a camera screen to set up as an event spot screen on the current monitoring screen.
2. Click the (Event Spot) button on the toolbar at the bottom of the Live panel, and the current connection in the selected camera screen is released. The event spot screen is surrounded by a blue outline.
3. When an event is detected, video from the event-detected camera is displayed on the event spot screen.

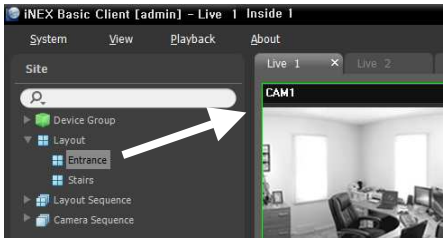


Layout Monitoring

You can monitor video from multiple cameras in a predefined layout. A layout should be registered on the iNEX system for the layout monitoring. Refer to the following explanation for details on layout registration.

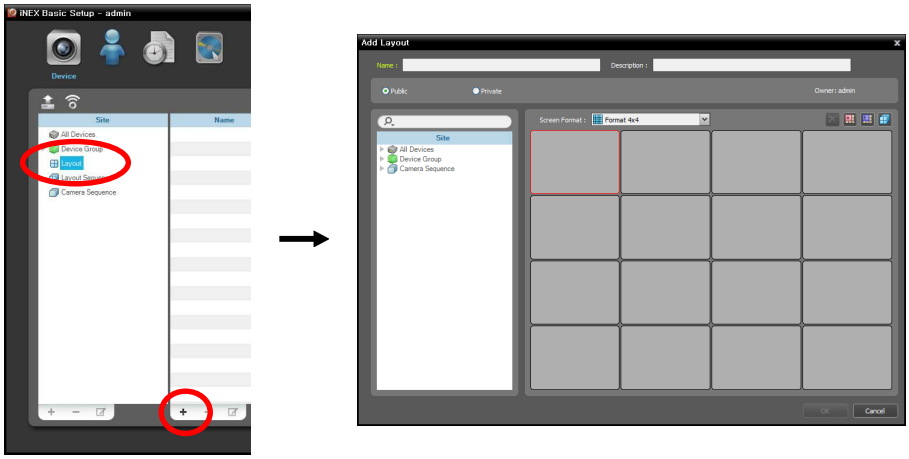
NOTE: A "layout" in this manual refers to a screen organization created by arranging specific cameras in a specific screen format.

Select a desired layout from the Layout list, and drag and drop it on the Live screen. Video from cameras added to the Layout is displayed in the predefined screen format on the screen.



Registering Layouts

1. Go to the System menu, and click iNEX Basic Setup, and select the Device menu.
2. Click Layout in the Site panel, and then the ✚ button at the bottom of the Site List panel on the right. The Add Layout window appears.



- Name: Enter the layout name.
- Site: Displays a list of registered devices, cameras or camera sequences. You can search for a registered device or camera sequence by entering text beside the icon. Entering text that you want to search for causes the search results to be displayed. Search results are displayed immediately as matching text is found. As you enter more text, the results narrow.
- Public/Private: Displays the layout to all users (Public) or to a current user only (Private). The admin user can see all layouts.
- Owner: Displays the user ID of the person who created the layout.
- Screen Format: Select a screen format for the layout to be registered. Select a device, a camera or camera sequence to assign to the layout in the Site panel, and drag and drop it in the desired camera screen of the layout screen.
- (Remove): Selecting a camera screen in the layout screen and clicking this button deletes the camera assigned to the camera screen from the layout screen.
- (Hotspot): Selecting a camera screen in the layout screen and clicking this button sets up the camera screen as a hotspot screen.
- (Event Spot): Selecting a camera screen in the layout screen and clicking the button sets up the camera screen as an event spot screen.
- (Camera Sequence): Selecting a camera screen in the layout screen and clicking this button allows you to create a camera sequence and assigns the created camera sequence to the camera screen.

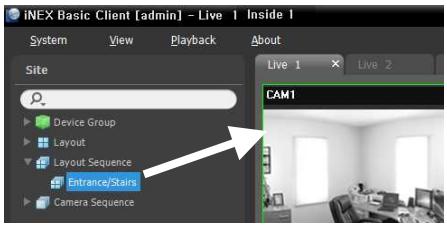
Clicking the OK button completes registration of the layout.

Layout Sequence Monitoring

You can monitor video from multiple cameras sequentially in more than one predefined layout. A layout sequence should be registered on the iNEX system for layout sequence monitoring. Refer to the following for details on layout sequence registration.

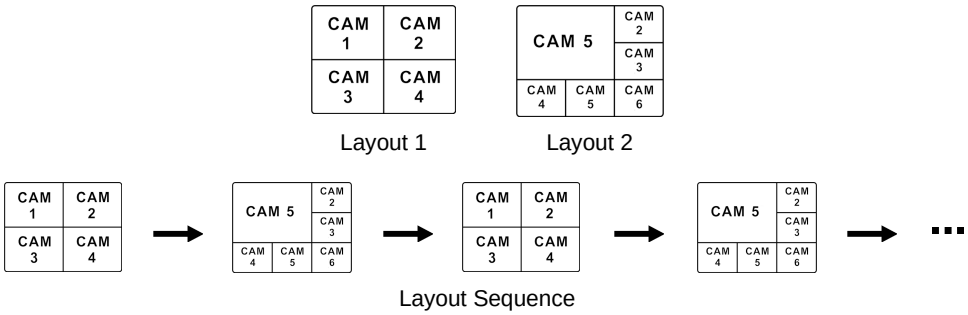
NOTE: A "layout" in this manual refers to a screen organization created by arranging specific cameras in a specific screen format.

1. Select a desired layout sequence from the Layout Sequence list, and drag and drop it on the Live screen. Video from cameras added to the layout sequence is displayed in the screen format for each layout on the screen sequentially.



2. Clicking the (Layout Sequence) button of the toolbar at the bottom of the panel stops or starts the layout sequence.

Example

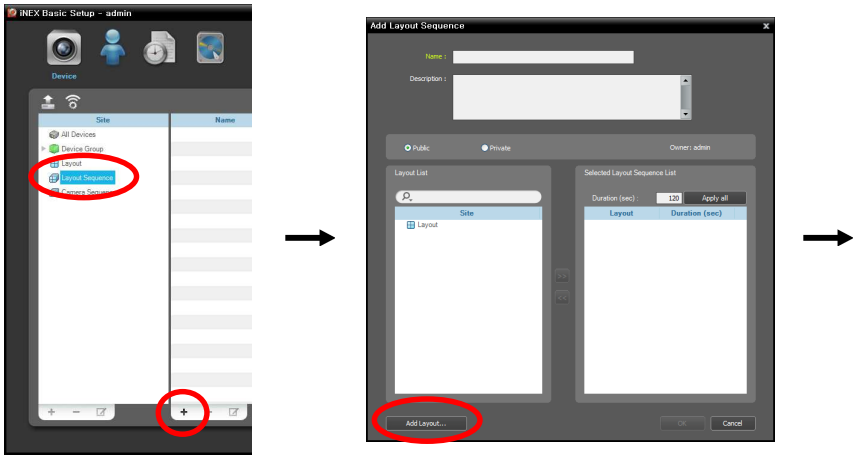


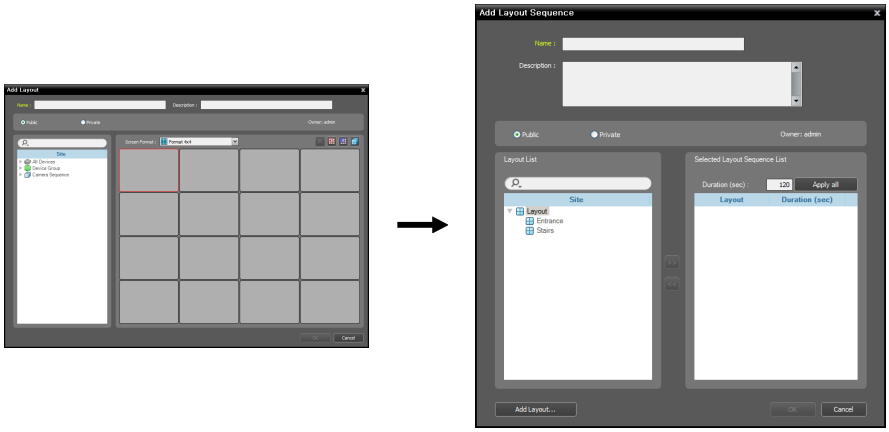
Registering Layout Sequences

1. Go to the System menu, and click iNEX Basic Setup, and select the Device menu.

2. Click Layout Sequence in the Site panel, and then the ✚ button at the bottom of the Site List panel on the right. The Add Layout Sequence window appears.

3. If no layout to be sequenced is registered, click the Add Layout button. The Add Layout window appears. Register layouts to sequence referring to Layout Monitoring (p. 31). At least two layouts must be registered for sequencing.





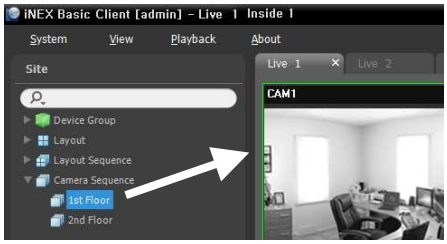
- Name: Enter the layout sequence name.
- Public/Private: Displays the layout sequence to all users (Public) or to a current user only (Private). The admin user can see all layout sequences.
- Owner: Displays the user ID of the person who created the layout sequence.
- Layout List: Displays a list of registered layouts. You can search for a registered layout by entering text beside the icon. Entering text that you want to search for causes the search results to be displayed. Search results are displayed immediately as matching text is found. As you enter more text, the results narrow.
- Selected Layout Sequence List: Displays the list of layouts registered for the layout sequence. Duration (sec) displays the duration for each layout to be displayed on the screen. Clicking the Apply all button applies the duration setting to all layouts in the list.

Select a layout from Layout List, click the >> button, and the selected layout is added to Selected Layout Sequence List. Clicking the OK button completes registration of the layout sequence.

Camera Sequence Monitoring

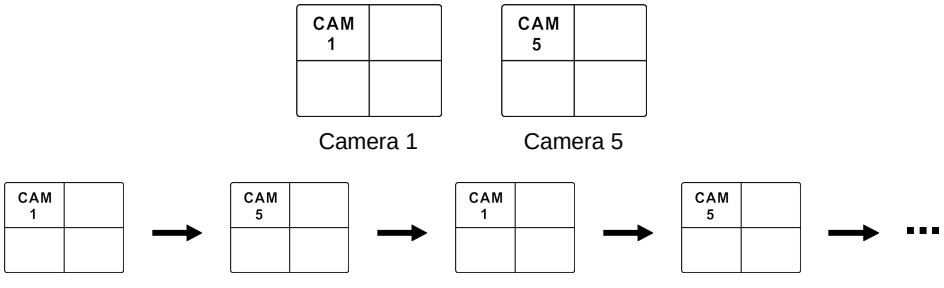
You can monitor video from multiple cameras in the same camera screen sequentially. A camera sequence should be registered on the iNEX system for camera sequence monitoring. Refer to the following for details on camera sequence registration.

1. Select a desired camera sequence from the Camera Sequence list, and drag and drop it on the Live screen. Video from cameras added to the camera sequence is displayed on the screen sequentially.



2. Clicking the (Camera Sequence) button on the camera screen control toolbar stops or starts the camera sequence.

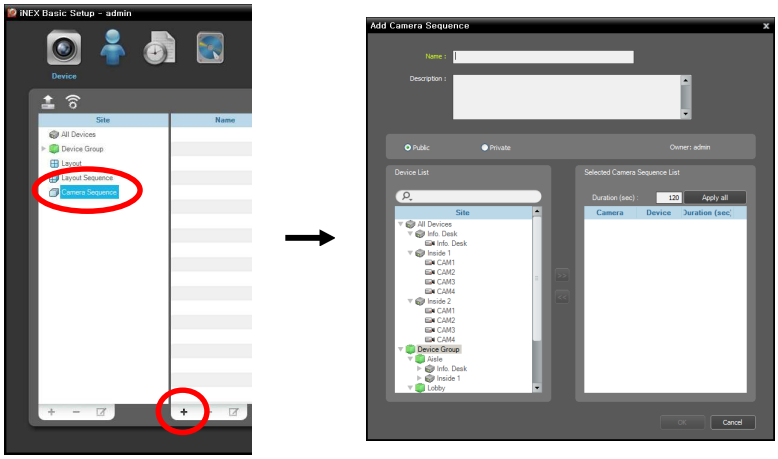
Example



Registering Camera Sequences

1. Go to the System menu, and click iNEX Basic Setup, and select the Device menu.

2. Click Camera Sequence in the Site panel, and then the ✚ button at the bottom of the Site List panel on the right. The Add Camera Sequence window appears.



- Name: Enter the camera sequence name.
- Public/Private: Displays the camera sequence to all users (Public) or to a current user only (Private). The admin user can see all camera sequences.
- Owner: Displays the user ID of the person who created the camera sequence.

- Device List: Displays a list of registered devices. You can search for a registered device by entering text beside the icon. Entering text that you want to search for causes the search results to be displayed. Search results are displayed immediately as matching text is found. As you enter more text, the results narrow.
- Selected Camera Sequence List: Displays the list of cameras registered for the camera sequence. Duration (sec) displays the duration for video from each camera to be displayed on the screen. Clicking the Apply all button applies the duration setting to all cameras in the list.

Select a camera from Device List, click the >> button, and the selected camera is added to Selected Camera Sequence List. Clicking the OK button completes registration of the camera sequence.

5.2 Controlling Cameras

A control toolbar and a screen menu are provided for controlling camera.

Control Toolbar

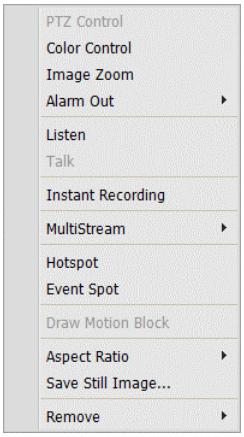
When selecting a camera screen and hovering the mouse cursor over the camera screen, the control toolbar is displayed over that camera screen. The control toolbar allows you to control the selected camera. Hovering the mouse cursor over a button displays a tooltip for the button.

- (PTZ Control): Allows you to control the PTZ for a camera that supports PTZ control. Refer to PTZ Control (p. 37) for details.
- (Color Control): Adjusts the brightness, contrast, saturation and hue of the current video. Clicking the button cancels the adjustment and reloads the original image.
- (Image Zoom): Zooms in on the image. Refer to Zoom Control (p. 38) for details.
- (Camera Sequence): Starts or stops camera sequence. Refer to 5.1 Monitoring Video, Camera Sequence Monitoring (p. 34) for details.
- / (Listen/Talk): Receives audio from the device or sends audio to the device.
- (Instant Recording): Starts or stops the Instant recording. During Instant recording, the Instant Recording OSD is displayed in the upper-right corner of the camera screen and Time-Lapse recording or Event-Based recording stops. . Recording might be delayed depending on system congestion, and the recording OSD might be displayed later or for longer than the scheduled time. Refer to Chapter 6 — Recording, 6.2 Setting up Recording Schedule, Setting up Instant Recording (p. 52) for details.

  NOTE: The instant recording is a function that allows you to manually record video which is currently being monitored. You can record desired video with higher performance if the codec, resolution, frame rate and quality have been set up at higher values for instant recording.

Live Screen Menu

The screen menu is displayed when selecting a camera screen and clicking the right mouse button. The screen menu allows you to control the selected camera.



- PTZ Control, Color Control, Image Zoom, Listen, Talk, Instant Recording: These function the same as clicking the individual buttons on the control toolbar. Refer to Control Toolbar (p. 36) for details.
- Alarm Out: Activates or deactivates alarm out.
- MultiStream: Allows you to choose the desired stream if the device is in the multistream mode for live monitoring.
- Hotspot: Sets up a selected camera screen as a hotspot screen. Refer to Hotspot Setup (p. 30) for details.
- Event Spot: Sets up a selected camera screen as an event spot screen. Refer to Event Spot Setup (p. 30) for details.
- Draw Motion Block: Displays the area where motion is detected with red blocks when a motion detection event occurs for the selected camera (Network Video Transmitter connection only).
- Aspect Ratio: Select the proper image aspect ratio.
  - Fit to Screen: Displays images by fitting them to the screen size regardless of the aspect ratio.
  - Fit to Screen (Aspect Ratio): Displays images by fitting them to the screen size keeping the aspect ratio. This might cause top and bottom or left and right side of images to be cropped depending on the screen size. This aspect ratio is not supported and Original Ratio is applied for camera screens that the following functions are activated: Image Zoom, Hotspot, Event Spot, Draw Motion Block.
  - Original Ratio: Displays images by fitting them within the screen size while maintaining their original ratio.
  - Half Size (x0.5) to Quadruple Size (x4): Selecting the desired image size displays images in the selected size. Options are enabled if the selected camera screen can display images in that size.
- Save Still Image: Saves the current image on the screen as an image file at its original size.
- Remove: Disconnects the current connection.

PTZ Control

Clicking the (PTZ Control) button on the control toolbar displays the PTZ control toolbar and allows you to control PTZ. Depending on the PTZ camera specifications, some features may not work.

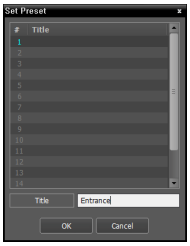
- (Direction Control): Displays or hides the (Direction Control Panel). You can control the direction of the PTZ camera by clicking the arrow buttons on the direction control panel or by clicking and dragging the mouse on the camera screen.
- (Zoom In/Out): Zooms the camera lens in or out.
- (Focus Far/Near): Focuses on near or far objects.
- (Iris Open/Close): Opens or closes the iris of the camera lens.
- (Set/View Preset): See PTZ Preset Control (p. 38) for an explanation of this function.
- (Advanced Menu): Displays the Advanced Menu window and allows you to use more features that the PTZ camera supports. Refer to the PTZ camera manufacturer's manual for details on additional features.
- (Close): Exits the PTZ mode and returns to the control toolbar.

PTZ Preset Control

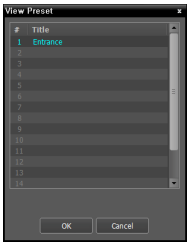
You can save camera directions as a Preset so that you can move the camera directly to the saved direction.

1. Move the PTZ camera to the desired position.

2. Click the (Set Preset) button on the PTZ control toolbar, and the Set Preset window appears. Enter a name for the Preset and click the OK button. The current position is saved as the Preset name.



3. Click the (View Preset) button on the PTZ control toolbar, and the View Preset window appears. Select the desired Preset, and the PTZ camera moves to the position of the selected Preset.



Zoom Control

Clicking the (Image Zoom) button on the control toolbar allows you to zoom on the current video.

NOTE: "PIP" is an abbreviation of *Picture in Picture* and describes a smaller screen within a screen.

Dragging the mouse on the camera screen moves the zoomed-in area.

- (Slide Bar): Adjusts the enlargement ratio. You can adjust the enlargement ratio also by using the mouse scroll wheel.
- (Actual Size Zoom): Enters the actual size zoom mode. In the actual size zoom mode, the image is displayed in its original size regardless of the camera screen size or image's aspect ratio.
- (Zoom Finder): Displays or hides the PIP screen. The rectangle in the PIP screen indicates the zoomed-in area.

Chapter 6 — Recording

You can record video from cameras connected to devices registered on the iNEX system, and the iNEX program provides three types of recording: Time-Lapse Recording, Event-Based Recording (Event and Pre-Event) and Instant Recording. During Time-Lapse recording or Event-Based recording, the system performs recording based on the settings of schedule Presets during the scheduled time. Instant recording can be manually started or stopped while monitoring video.

When more than one recording mode is set up for the same period, the iNEX system records video with the recording settings of the highest priority recording mode. The priority order of recording modes is as follows: Pre-Event recording (lowest) → Time-Lapse recording or Event recording → Instant recording (highest). In the same recording mode or between the Time-Lapse recording and Event recording mode, the schedule higher up the list in the Schedule Setup window has priority over the other schedules. You can change a schedule's priority by changing its position in the schedule list.

First, check the following and run the Setup program.

- Services should be running on the system. Refer to Chapter 3 — Getting Started, 3.1 Running Services (p. 7) for details.
- Devices should be added to a device group. Refer to Chapter 11 — Device Management (p. 71) for details.

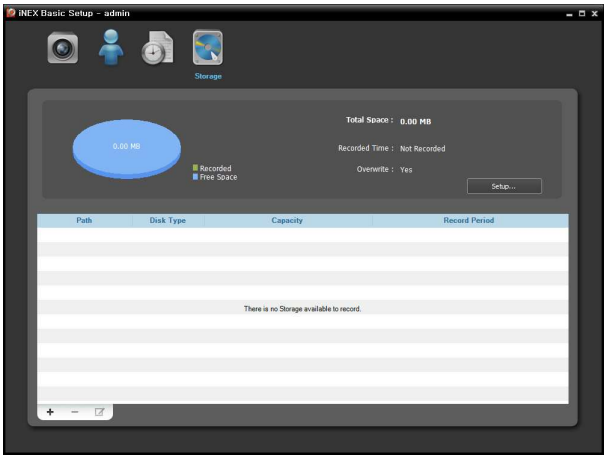
6.1 Setting up Recording Storage

You must allocate storage in order to record video from cameras. Go to the Start Menu → Click iNEX Basic → Run the iNEX Basic Setup program → Select the Storage menu, and then allocate storage following the procedures below.

NOTES:

- USB hard disks, network hard disks and hard disks set to *Dynamic* cannot be allocated storage.
- It is recommended to add a new unformatted hard disk drive to ensure stable recording. If you are setting up a hard disk drive which contains data, however, you are to delete partition(s) and the file system in advance after formatting. Refer to the PC/server user's manual or consult with the PC/server manufacturer for details on how to format or delete the partition(s) and file system.
- When removing a hard disk drive that contains recorded video from a iNEX system and installing it in another iNEX system, you cannot search or play back the video recorded on the original iNEX system.
- The total amount of storage for one iNEX system cannot exceed 5,000GB.

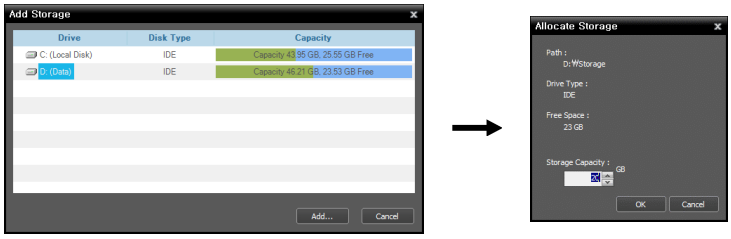
Allocating Storage



1. Click the ✚ button at the bottom. The Add Storage window appears, and a list of available hard disk drives is displayed with information about each drive.

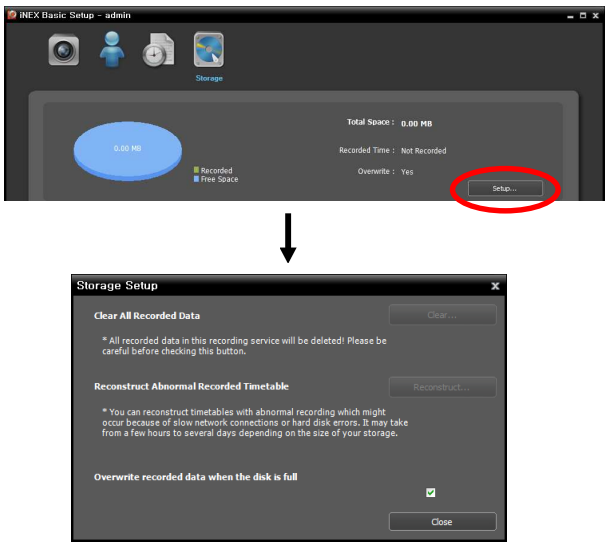
- Drive: Displays the drive name and volume label. If a file system has not been created on a hard disk drive, 'PHYSICALDRIVE No.' will be displayed instead of the drive name and volume label. The iNEX program considers any hard disk drive that does not use Windows file system (FAT32, NTFS) as if no file system has been created.
- Disk Type: Displays the type of hard disk drive.
- Capacity: Displays the total storage capacity and available storage capacity.

2. Select a hard disk drive from the list and click the Add button at the bottom. The Allocate Storage window appears.



- Path: Displays the storage folder path.
- Drive Type: Displays the type of hard disk drive.
- Free: Displays the available storage capacity.
- Storage Capacity: Sets up the storage capacity to be allocated to the hard disk drive (Min. 20GB). If the Windows operating system is installed on the hard disk drive, you must reserve more than 10GB of free hard disk space for proper system operation. If no file system has been created on the hard disk drive, the iNEX system automatically creates a proprietary video database file system when storage is allocated to ensure more stable recording and allocates storage to the entire hard disk drive automatically.

3. Click the Setup button. The Storage Setup window appears.


iNEX Basic Setup - admin
Storage
Total Space : 0.00 MB
Recorded Time : Not Recorded
Overwrite : Yes
0.00 MB
Recorded
Free Space
Setup...
Storage Setup
Clear All Recorded Data
Clear...
* All recorded data in this recording service will be deleted! Please be careful before checking this button.
Reconstruct Abnormal Recorded Timetable
Reconstruct...
* You can reconstruct timetables with abnormal recording which might occur because of slow network connections or hard disk errors. It may take from a few hours to several days depending on the size of your storage.
Overwrite recorded data when the disk is full
Close

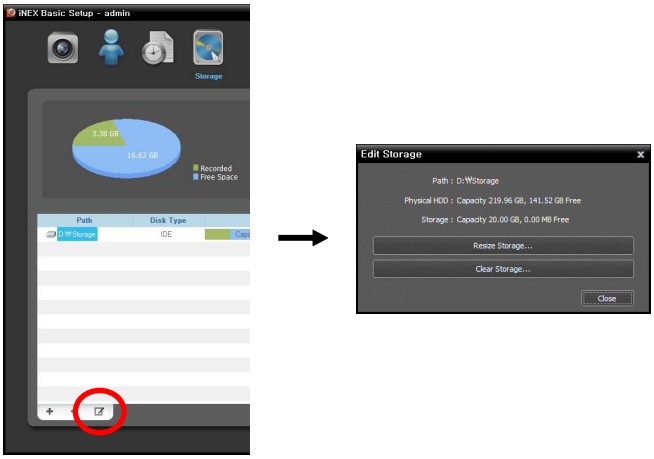
- Clear All Recorded Data: Deletes all recorded data on all hard disk drives used in the iNEX system.
- Reconstruct Abnormal Recorded Timetable: When the network connection between the iNEX system and the devices is too slow or a hard disk drive in the iNEX system is damaged, the recorded data and the timetable information of the recorded data might not match and the timetable in the Client program might display incorrect information. In this situation, clicking the button reconstructs the timetable to display recorded data correctly on the timetable in the Client program.

- Overwrite recorded data when the disk is full: Checking the box records over the oldest video data once all available storage space has been used.

Managing Storage

You can increase storage capacity by resizing the current storage or delete the storage.

Click the storage to edit in the storage list, and then the button at the bottom. The Edit Storage window appears.



- Resize Storage: Allows you to increase the storage capacity.
- Clear Storage: Allows you to delete all data recorded in the storage.

NOTE: Search or playback of recorded data will be stopped when storage is resized or cleared.

CAUTION: Clearing storage deletes all data recorded in the storage and the deleted data cannot be restored.

6.2 Setting up Recording Schedule

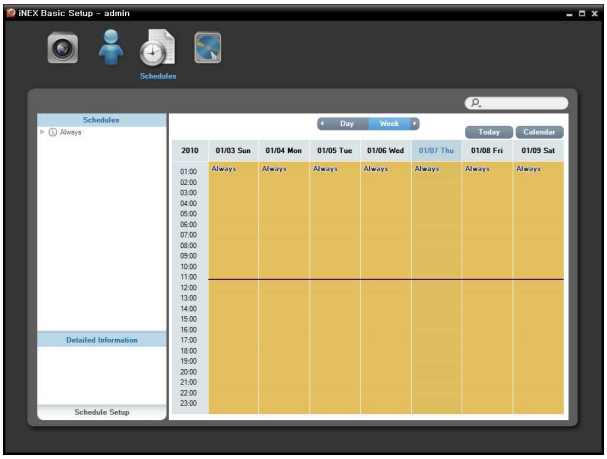
Go to the Start Menu → Click iNEX Basic → Run the iNEX Basic Setup program → Select the Schedule menu, and set up the recording schedule following the procedures below.

NOTES:

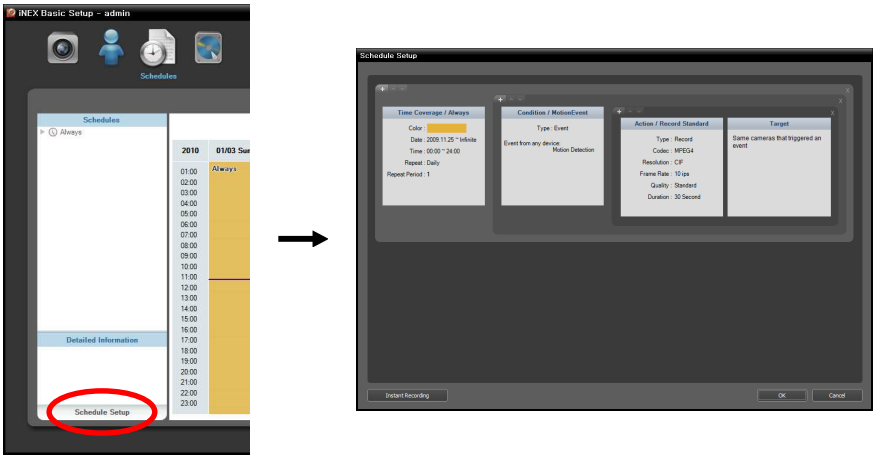
- The recording function is supported only for the device registered as the *admin* user.
- If the same device is registered on another iNEX system, only the first iNEX system that is connected to the device records video. Once a iNEX system connects to the device, other iNEX systems will not record video from the device unless the connection of the first iNEX system is released.
- The iNEX program performs recording with the settings of codec, resolution, frame rate and quality set in the device if the device is not a network video transmitter.

NOTES:

- When the recording speed and resolution set in the iNEX program are higher than the *Frame Rate* and *Max. Resolution* set on the device, the iNEX system will record video at the *Frame Rate* and *Max. Resolution* set on the device (four-channel network video transmitters only).
- If network connection is temporarily lost between the device and the iNEX system because of network problems or iNEX system reboot, the device saves video temporarily while the network is down. When network connection is re-established, the device transmits the saved video to the iNEX system at a time. In this case, video recording during the period might be made with different settings from those in the recording schedule.
- Recording speed might be decreased depending on the network conditions or system performance.
- Recording might be delayed because of system congestion, and the recording OSD might be displayed later or for longer than the scheduled time.
- The recording performance of the iNEX system might seriously deteriorate when simultaneously monitoring or playing back video with 1280x720 or higher resolution on more than one camera screen.
- Video monitoring or playback might not be smooth during recording depending on the iNEX system performance.



Click the Schedule Setup button at the bottom. The Schedule Setup window appears, and schedule windows are displayed with the current settings for each Preset.



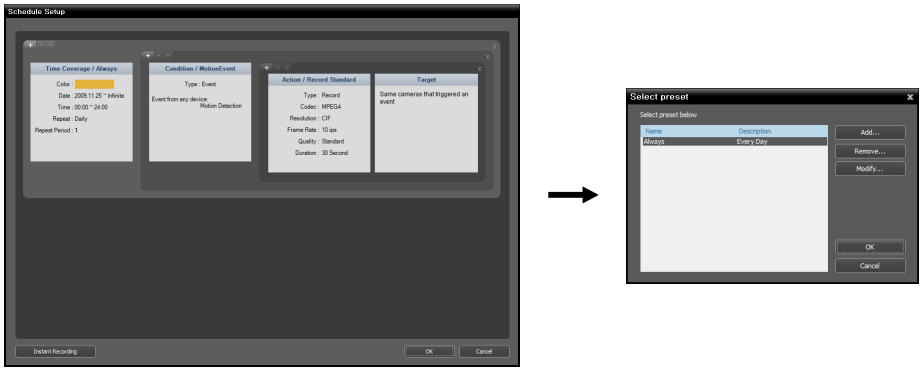
- Time Coverage: Sets up the schedule time. You can set up more than one time range. The higher the schedule position is in the Schedule Setup window, the higher its priority is.
- Condition: Sets up the recording type. You can set up more than one recording type for the same recording period. The higher the schedule position is in the Schedule Setup window, the higher its priority is.
- Action: Sets up the recording settings (network video transmitters only). You can set up more than one recording setting for the same recording type. If the device is not a network video transmitter, the iNEX program records video according to the settings in the device.
- Target: Sets up the cameras to be recorded.
- Instant Recording: Sets up the recording settings for Instant recording. Refer to Setting up Instant Recording (p. 52) for details.

NOTE: In the schedule setup, "Preset" indicates a single setting in which the setting values of *Time Coverage*, *Condition* or *Action* are saved.

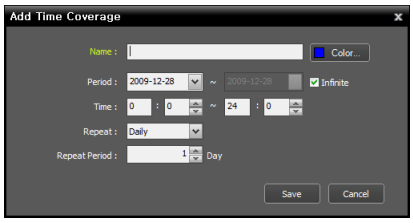
Setting up Time-Lapse Recording

During Time-Lapse recording, the iNEX system performs recording continuously based on the schedule settings for the scheduled time.

1. Set up the schedule time by double clicking the Time Coverage schedule window, and then selecting a desired Preset.

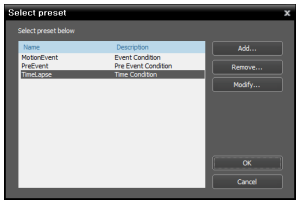


You can add a new Preset or edit a saved Preset by clicking the Add or Modify button. Refer to the following explanation for setting up a schedule.



- Name: Enter the Preset name.
- Color: Click the button and select a desired color. The scheduled time section will be highlighted with the selected color in the schedule table.
- Period: Set up the schedule time. Selecting the Infinite option causes continuous recording based on the Condition, Action and Target preset settings without limiting the period.
- Time: Set up the schedule time.
- Repeat, Repeat Period: Set up the recording interval and interval period. The iNEX system will perform recording at the designated interval during the interval period.

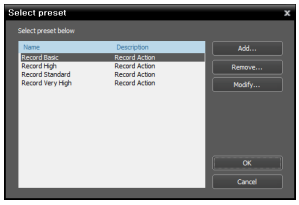
2. Set the recording mode to the Time-Lapse Recording mode by double clicking the Condition schedule window and selecting a desired Preset of time condition.



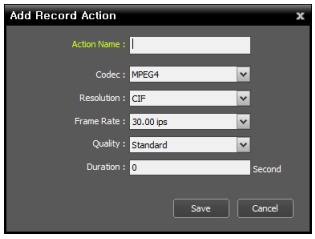
You can add a new Preset or edit a saved Preset by clicking the Add or Modify button. Clicking the Add or Modify button displays the following setup screen.

Enter the Preset name and select Time Condition from the Condition Type list.

3. Set up the recording settings by double clicking the Action schedule window and selecting the desired Preset.

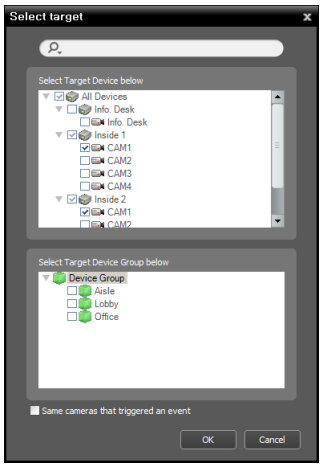


You can add a new Preset or edit a saved Preset by clicking the Add or Modify button. Clicking the Add or Modify button displays the following setup screen.



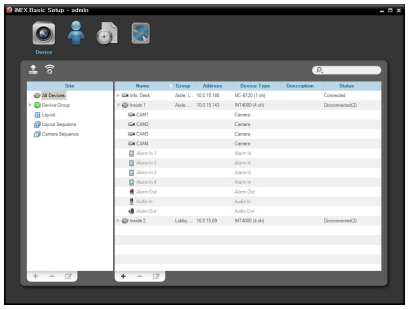
- Action Name: Enter the Preset name.
- Codec, Resolution, Frame Rate, Quality: The settings are only for recording video from network video transmitters. When recording video from other devices, the iNEX system performs recording based on the settings in each device. Select the desired compression codec, resolution, frame rate and quality. The frame rate cannot exceed 15 ips when video is recorded with the H.264 codec and 4CIF resolution.
- Duration: This is not supported for time-lapse recording.

4. Select the cameras to be recorded after double clicking the Target schedule window.



Select cameras from the device list to record video or select device groups from the device group list. The Same cameras that triggered an event option is not supported during Time-Lapse recording.

5. You can check the recording status in the Device menu. Click All Devices in the Site panel and all registered devices are displayed in the Site List panel. Click the arrow button (▼) beside the device name, and check the status (Record: During Time-Lapse recording or Event-Based recording, Panic: During Instant recording, Idle: Ready to record). The Time-Lapse Recording or Event-Based Recording OSD (●) is displayed in the upper right corner of the camera screen of the Live screen in the Client program.

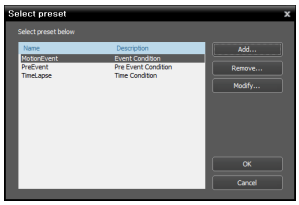


Setting up Event-Based Recording

During Event or Pre-Event recording, the iNEX system records based on the event detection for the scheduled time.

1. Set up the schedule time by double clicking the Time Coverage schedule window, and then selecting a desired Preset. The way to set up the schedule time for Event or Pre-Event recording is identical to the way to set up for Time-Lapse recording. Refer to Setting up Time-Lapse Recording (p. 44) for details.

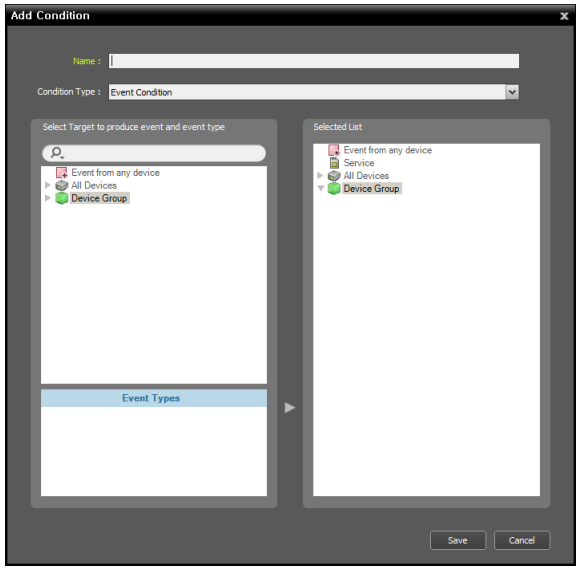
2. Set the recording mode to Event Recording or Pre-Event Recording by double clicking the Condition schedule window. Then select a desired Preset of event or pre-event condition.



You can add a new Preset or edit a saved Preset by clicking the Add or Modify button. Clicking the Add or Modify button displays the following setup screen.

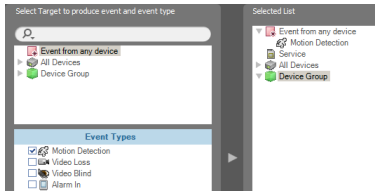
Event Recording Condition

The iNEX system records when predefined events are detected.



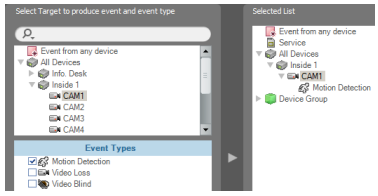
- Name: Enter the Preset name.
- Condition Type: Select Event Condition.
- Select Target to produce event and event type: Select event types that trigger video recording.
  - Event from any device: Select to record video when user-defined types of events are detected.

    Click Event from any device, and the list of event types is displayed in Event Types below → Select the desired event types, and the selected event types are added to the list under Event from any device on the right.



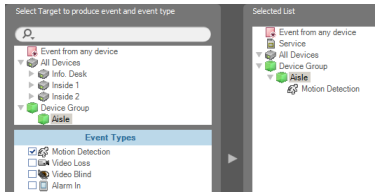
  - All Devices: Select to record video when user-defined types of events are detected from the selected device or camera.

    Click All Devices, and the list of registered devices and cameras is displayed → Under All Devices, click a device or camera to trigger event recording, and the list of event types supported by the device or camera is displayed in Event Types below → Select the desired event types, and the selected event types are added along with the selected device or camera to the list under All Devices on the right.



– Device Group: Select to record video when the user-defined types of events are detected in the selected device group.

  Click Device Group, and the list of registered device groups is displayed → Under Device Group, click a device group to trigger event recording, and the list of event types is displayed in Event Types below → Select the desired event types, and the selected event types are added along with the selected device group on the right.

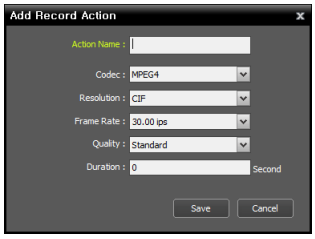


Pre-Event Recording Condition

The iNEX system records video prior to event detection when predefined events are detected.

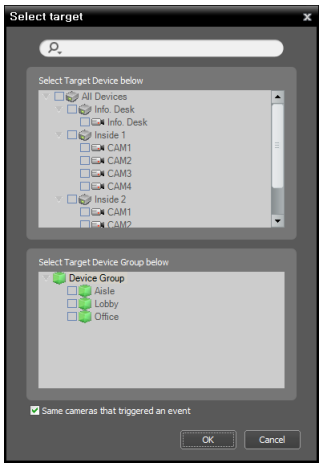
Enter the Preset name and select Pre Event Condition from the Condition Type list.

3. Set up the recording settings by double clicking the Action schedule window, and then selecting a desired Preset.



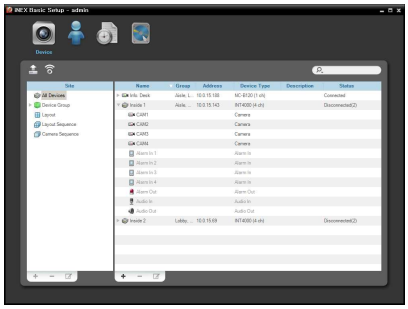
- Action Name: Enter the Preset name.
- Codec, Resolution, Frame Rate, Quality: The settings are only for recording video from network video transmitters. When recording video from other devices, the iNEX system performs recording based on the settings in each device. Select the desired compression codec, resolution, frame rate and quality. The frame rate cannot exceed 15 ips when video is recorded with the H.264 codec and 4CIF resolution.
- Duration: Set up the duration (max. 60 seconds) of recording when a predefined event is detected. For Event recording, the system records video for the duration from the time an event is detected. For Pre-Event recording, the system records video for the duration prior to event detection.

4. Select the cameras to record after double clicking the Target schedule window.



Select cameras from the device list or device groups from the device group list from which to record video whenever any predefined event is detected. Selecting the Same cameras that triggered an event option records video only from the camera where the predefined event is detected (not supported for alarm-in events and audio detection events). The Same cameras that triggered an event option is not supported for Pre-Event recording.

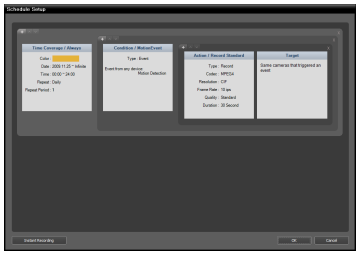
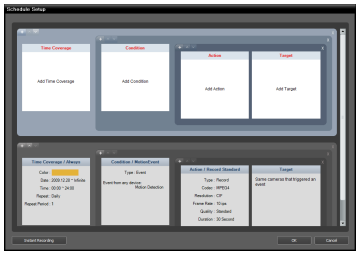
5. You can check the recording status in the Device menu. Click All Devices in the Site panel and all registered devices are displayed in the Site List panel. Click the arrow button ( ) beside the device name, and check the status (Record: During Time-Lapse recording or Event-Based recording, Instant Recording: During Instant recording, Idle: Ready to record, Not Use: Camera disabled, Video Loss: On video loss). The Time-Lapse Recording or Event-Based Recording OSD ( ) is displayed in the upper right corner of the camera screen of the Live screen in the Client program.



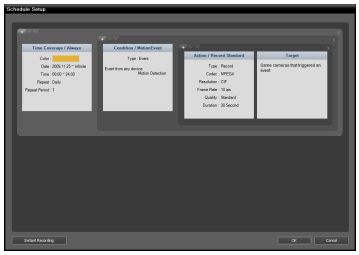
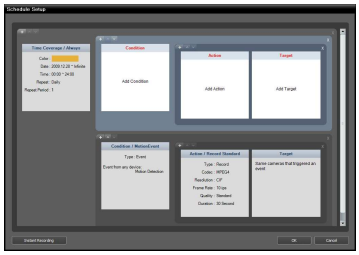
Managing Recording Schedule

Adding a New Schedule

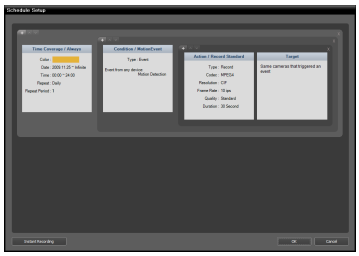
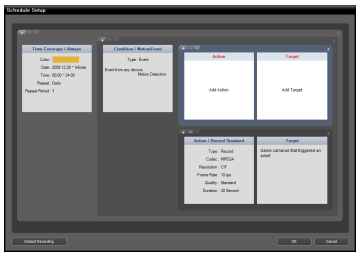
- Adding a new schedule with a different time range: Clicking the button in the upper left corner of the Time Coverage schedule window allows you to add a new schedule with a different time range.

- Adding a new schedule with the same time range: Clicking the button in the upper left corner of the Condition schedule window allows you to add a new schedule with the same time range.

- Adding a new schedule with the same time range and target: Clicking the button in the upper left corner of the Action schedule window allows you to add a new schedule with the same time range and target.

Deleting a Schedule

Clicking the button in the upper right corner of any schedule window deletes the schedule.

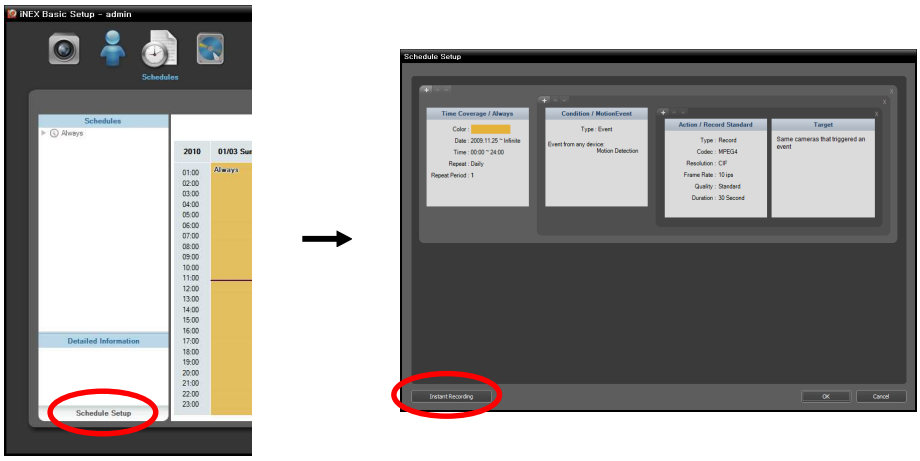
Changing Schedule Priority

Clicking the or button in the upper left corner of each schedule window changes the priority of the schedules. The higher the schedule position is in the Schedule Setup window, the higher its priority is. The Pre-Event Recording mode has no priority over the Time-Lapse Recording or Event Recording mode.

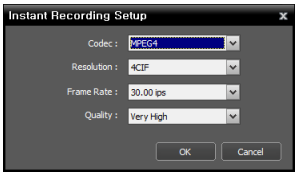
Setting up Instant Recording

Instant recording can be manually started or stopped while monitoring video.

1. Click the Schedule Setup button at the bottom. The Schedule Setup window appears.



2. Click the Instant Recording button at the bottom, and the Instant Recording Setup window appears. The settings are only for recording video from network video transmitters. When recording video from other devices, the iNEX system performs recording based on the settings in each device. Select the desired compression codec, resolution, frame rate and quality of video. The frame rate cannot exceed 15 ips when video is recorded with the H.264 codec and 4CIF resolution.



3. Run the Client program. Select a camera screen (on the Live screen) on which video to record is displayed and click the (Instant Recording) button on the control toolbar. The Instant Recording OSD () is displayed at the top right corner of the camera screen, and the system starts recording based on the predefined settings. Clicking the (Instant Recording) button again stops recording. Recording might be delayed because of system congestion, and the recording OSD might be displayed later or for longer than the scheduled time.

Chapter 7 — Recorded Video Playback & Exportation

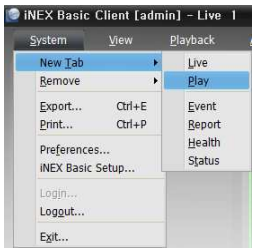
You can play back recorded video or export recorded video to USB devices.

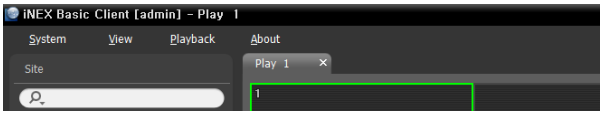
First, check the following and run the Client program.

- Services should be running on the system. Refer to Chapter 3 — Getting Started, 3.1 Running Services (p. 7) for details.
- Devices should be added to a device group. Refer to Chapter 11— Device Management (p. 71) for details.
- There should be recorded data in the allocated storage. Refer to Chapter 6 — Recording, 6.1 Setting up Recording Storage (p. 39) for details.

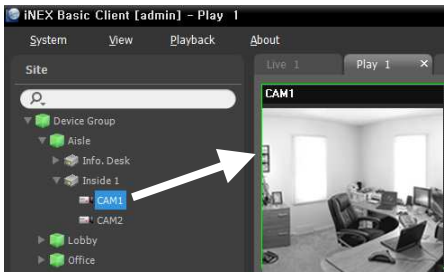
7.1 Playing back Recorded Video

1. Search and playback of recorded video are supported in the Play (max. 2) panel. If the Play tab is not on the tab panel, go to the System menu, click New Tab and then Play.





2. Click the Play tab on the tab panel → Select a camera, device or device group from the Site list and drag and drop it on the Play screen. Recorded video from each camera is displayed on the screen. You can move a camera screen to the desired location on the Play screen without stopping the current playback while playing back video. Select a camera screen and drag and drop it on the desired location.



   If a layout is registered on the iNEX system, you can play video in the layout format by selecting a desired layout from the Layout list and dragging and dropping it on the Play screen. Refer to Chapter 5 — Live Video Monitoring, 5.1 Monitoring Video, Layout Monitoring, Registering Layouts (p. 31) for details on the registration of a layout.

NOTES:

- The iNEX system performance might seriously deteriorate when simultaneously monitoring or playing back video with 1280x720 or higher resolution on more than one camera screen.
- A “layout” in this manual refers to a screen organization created by arranging specific cameras in a specific screen format.

3. A panel toolbar, a timetable, a control toolbar and a screen menu are provided for playing back recorded video.

Panel Toolbar

The toolbar at the bottom of the panel allows you to search and play back recorded video.

- (Calendar): Searches video for a specific date. Selecting a date displays the recorded data for that date in the timetable. The dates containing recorded images are available are enabled in the calendar.
- (Move to): Searches video for a specific time.
  - Go To: Displays a time setup window. Entering a specific time moves to the image for that time.
  - Move First: Moves to the first recorded image in the data displayed in the timetable.
  - Move Last: Move to the last recorded image in the data displayed in the timetable.
- (Export/Print Image): Exports or prints the images currently displayed on the screen.
- (Export Video File): Exports recorded video as a self-player file (.exe) or an AVI file (.avi). Refer to 7.2 Exporting Recorded Video (p. 58) for details.
- (Snapshot on Motion Event): Displays snapshot of images recorded during the event-based recording (event and pre-event) in the Play panel. Refer to Snapshot on Motion Event (p. 56) for details.
- (Step Playback): Moves the video forward or backward based on the setting displayed between the and buttons. Clicking the arrow between the and buttons allows you to change the interval the video moves.
- (Play): Plays recorded video on the Play screen.
- (Jog Shuttle): You can adjust the playback direction and speed by using the jog shuttle. The vertical line in the jog shuttle indicates the current playback direction and speed. Video is played back backward when the vertical line is to the left of the center and video is played back forward when the vertical line is to the right of the center. The farther the position is from the center, the faster video is played back. Clicking the vertical line and dragging it to the desired position on the jog shuttle and holding it plays video at a constant speed. Releasing the mouse button causes the vertical line to return to the center position. Clicking the (Play) button plays video at normal speed. Clicking the (Shuttle Lock) button and dragging and dropping the vertical line to a desired position fixes the vertical line in that position.
- (Save to User Layout): Saves the current screen format.
- (Screen Format): Changes the screen format. Clicking the button displays additional screen formats. Clicking the or button moves to the previous or next camera groups.

Timetable

The timetable at the bottom of the screen displays the recording information for each camera. Clicking the button in the top right corner of the timetable displays the recording information for all cameras. Clicking the button displays the recording information for the selected camera on the Play screen.

① Current Playback Date/Time: Indicates the video time for the current playback location on the timetable.

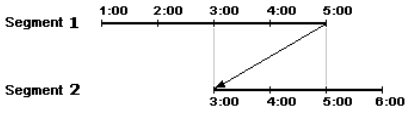
② Recorded Period: Displays the date and time period of the recorded data. Clicking anywhere in the empty space and dragging it to the left or right moves to the earlier or later date or time. Scrolling the mouse wheel while holding the Ctrl key on the keyboard zooms in and out the time section.

③ Camera Title: Displays the camera title.

④ Recorded Data: Displays the recorded data by time in one minute segments.
- Red vertical line: Indicates the current playback location of video on the timetable. Clicking the mouse on the desired time displays the first image recorded within the time.
- Yellow separation line: Separates segments when time overlap occurs. In this case, the recorded data in the time range located after the separation line is the latest. Clicking the (Calendar) button in the panel toolbar allows you to move to a specific segment directly (Click the (Calendar) button → Select a date → Select a segment → The first image recorded within the selected segment is displayed on the screen).
- The color of the bar: Indicates different recording modes (Navy blue for Time-lapse, Pink for Event, Purple for Pre-event, Sky blue for Instant Recording and Orange for Irregular recording caused by temporary disconnection from the device).

NOTE: If the iNEX system's time and date have been reset to a time that is earlier than previously recorded video, it is possible that there is more than one video segment in the same time range due to time overlap. In this case, you can individually play video recorded during the overlapping time by selecting a segment.

For example, when the iNEX system has recorded video from one to five o'clock and the user changes the time backward from five to three o'clock and then continues recording until six o'clock, there will be two segments from three to five o'clock.



Control Toolbar

The control toolbar is displayed over a selected camera screen when hovering the mouse cursor over the camera screen. Hovering the mouse cursor over each button displays a tooltip for the button.

- (Object/Motion Search): Allows you to search for changes or motion in recorded images in the iNEX system. Refer to Object/Motion Search (p. 56) for details.
- (Image Zoom): Zooms in on the image. Refer to Zoom Control (p. 57) for details.
- (Color Control): Adjusts the brightness, contrast, saturation and hue of the current video. Clicking the button cancels the adjustment and reloads the original image.
- (Image Effect): Adjusts the image effect. Refer to Image Effect (p. 58) for details.
- (Audio Play): Plays audio when playing back video that has recorded audio (single-screen format only).

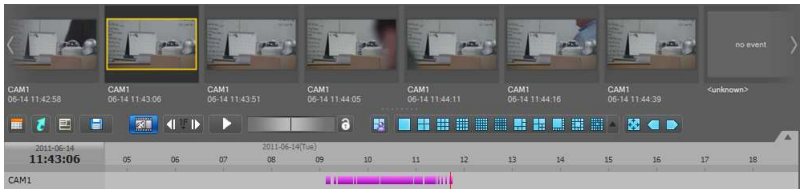
Play Screen Menu

The screen menu is displayed when selecting a camera screen and clicking the right mouse button.

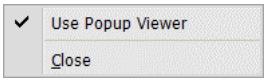
- Image Zoom: Functions as the same as clicking the button in the control toolbar. See Control Toolbar (p. 55) for details.
- Object/Motion Search: Allows you to search for changes or motion in the recorded images in the iNEX system. Refer to Object/Motion Search (p. 56) for details.
- Image Processing: Enhances playback images. Refer to Control Toolbar (p. 55) for details.
- Aspect Ratio: Select the proper image aspect ratio.
  - Fit to Screen: Displays images by fitting them to the screen size regardless of the aspect ratio.
  - Fit to Screen (Aspect Ratio): Displays images by fitting them to the screen size keeping the aspect ratio. This might cause top and bottom or left and right side of images to be cropped depending on the screen size. This aspect ratio is not supported and Original Ratio is applied for camera screens that the following function is activated: Image Zoom.
  - Original Ratio: Displays images by fitting them within the screen size while maintaining their original ratio.
  - Half Size (x0.5) to Quadruple Size (x4): Selecting the desired image size displays images in the selected size. Options are enabled when the selected camera screen can display images in that size.
- Save Still Image: Saves the current image on the screen as an image file at its original size.
- Remove: Disconnects the current connection.

Snapshot on Motion Event

Clicking the (Snapshot on Motion Event) button on the panel toolbar displays snapshots of images recorded during the event-based recording (event and pre-event) in the Play panel.



The timetable displays the recording information of the selected snapshot. Clicking anywhere on the recorded data in the timetable displays a snapshot of the selected time.



- Use Popup Viewer: Enables display of the popup viewer screen. Hovering the mouse cursor over each snapshot displays a popup viewer screen above the snapshot.

Object/Motion Search

Clicking the (Object/Motion Search) button on the control toolbar displays the object/motion search panel at the bottom and allows you to search for changes or motion in recorded images in the iNEX system.

- (Draw Search Zone): Allows you to define the area to search for changes or motion on the camera screen by dragging the mouse. The search zone is displayed with red blocks.
- (Erase Search Zone): Allows you to erase the search zone set on the camera screen by dragging the mouse.
- (Set Ref. Image): Sets the image currently displayed on the camera screen as a reference image for change detection (Object Search only).
- (View Ref. Image): Displays or hides a PIP screen with the reference image (Object Search only).

- Find Method: Selects a search method.
  - Motion Search: Searches for images with changes in the Search Zone between two consecutive images (for example, when there was movement).
  - Object Search: Searches for images with changes which last for the Activation Time in the Search Zone when compared to the reference image (for example, when an object disappeared).
- Sensitivity: Sets the sensitivity of the change detection. The higher the number is, the more sensitive it is.
- Num of diff. block: Sets the minimum number of blocks that must be activated to be considered as a change (Motion Search only).
- Diff. % to ref. image: Sets the minimum proportion (%) of blocks that must be activated to be considered as a change (Object Search only).
- Activation Time: Sets the duration that the change must last to be considered as a change. If a change is detected but does not last as long as the Activation Time, the change is not considered as a change.

Zoom Control

Clicking the (Zoom) button on the control toolbar allows you to zoom on the current video.

NOTE: "PIP" is an abbreviation of *Picture in Picture* and indicates the smaller screen within a screen.

Dragging the mouse on the camera screen moves the zoomed-in area.

- (Slide Bar): Adjusts the enlargement ratio. You can adjust the enlargement ratio also by using the mouse scroll wheel.
- (Actual Size Zoom): Enters the actual size zoom mode. In the actual size zoom mode, the image is displayed in its original size regardless of the camera screen size or image's aspect ratio.
- (Zoom Finder): Displays or hides the PIP screen. The rectangle in the PIP screen indicates the zoomed-in area.

Image Effect

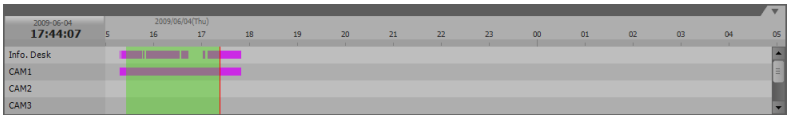
Clicking the (Image Effect) button on the control toolbar displays the image effect control toolbar and allows you to control image effect.

- (Blur): Blurs the image to reduce noise.
- (Sharpen): Sharpens an image.
- (High-Boost): Increases the brightness and contrast of images.
- (Histogram Equalization): Equalizes the image brightness to make it more natural.
- (Edge Detection): Extracts the image edge.
- (Revert): Cancels the adjustment and reloads the original image.

7.2 Exporting Recorded Video

You can export recorded video to USB devices. Click the (Export Video File) button on the toolbar at the bottom of the panel, and the export menu is displayed.

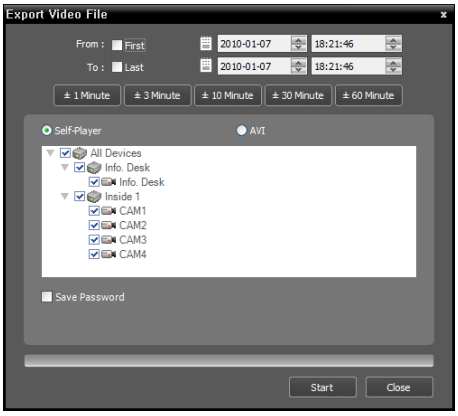
- A-B Export Video File: Sets up the section of video to be exported by using the timetable. Select A-B Export Video File from the export menu. Click the starting point in the timetable and drag to the ending point. The Export Video File window appears and allows you to export video of the selected period as a self-player file (.exe) or an AVI file (.avi). Refer to Exporting as a Self-Player File (p. 58) and Exporting as an AVI File (p. 61) for details.



- Export Video File: Sets up the section of video to be exported by entering the date and time manually. Select Export Video File from the export menu. The Export Video File window appears and allows you to export video for the period as a self-player file (.exe) or an AVI file (.avi). Refer to Exporting as a Self-Player File (p. 58) and Exporting as an AVI File (p. 61) for details.

Exporting as a Self-Player File

The recorded video is exported as a self-player file (.exe).



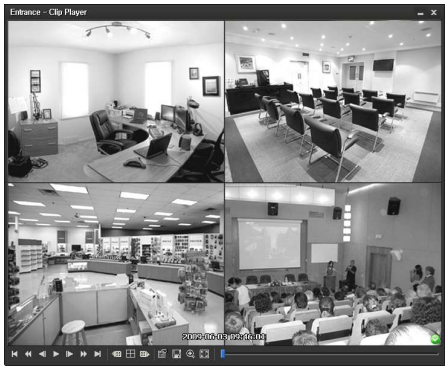
- (Slide Bar): Adjusts the
- From, To: Enter the date and time of video to export. Selecting First sets the date and time to the date and time of the first available recorded video. Selecting Last sets the date and time to the date and time of the last available recorded video. Clicking the ± 1 Minute, ± 3 Minute, ± 10 Minute, ± 30 Minute or ± 60 Minute button increases or decreases the time by the selected amount from the time selected on the timetable.
- Self-Player, AVI: Select Self-Player.
- Save Password: Set up a password for playing back the exported video. You will be asked to enter the password to initiate the Player program.

Playing Self-Player File

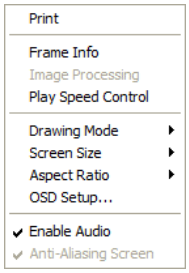
You do not need to install any special software to play video exported as a self-player file because the self-player file contains a player program (Clip Player). Double clicking the target file starts the Player program, and video is displayed on the screen. Clicking the slide bar at the bottom of the Player program displays the playback image of the selected time on the screen. Clicking the button exits the Player program.

NOTES:

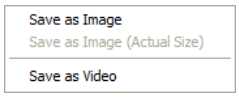
- It is suggested that the computer used for the Player program has at least an 800MHz Pentium III (Intel Pentium Dual Core 2.2GHz recommended). If your CPU is slower than this, video clips recorded at maximum speed with very high image quality will be played back slowly. Also DirectX 9.0 or higher is required to install, and the VGA card with 16MB or higher video RAM is recommended for proper operation.
- Proper image display depends on the display settings of your PC. If you are experiencing display problems, click the right mouse button on the background screen and select *Properties* → Settings then set the *Color quality* to "*32 bit*". Then select *Advanced* → *Troubleshoot*, and then set the *Hardware Acceleration* to "*Full*". Please make sure that DirectX version 9.0 or higher has been installed if the display problem continues. To check the version of DirectX, click *Start* → *RUN* and type "dxdiag" then hit the enter key which will display DirectX Diagnostic Tool dialog box. Then move to the *Display* tab and make sure *DirectDraw Acceleration* is set to "*Enabled*". Test DirectDraw by selecting the *DirectDraw Test* button when using the Microsoft® Windows® XP operating system. Please check the driver version of the video card and update it to the latest version available. If you still have display problems after changing all display settings as described above, try replacing the video card. Video cards with an ATI chipset are recommended.



- : Goes to the beginning of the video.
  : Plays the video in fast reverse.
  : Goes backward one frame of the video.
  : Plays the video at regular speed.
  : Goes to the end of the video.
  : Plays the video in fast forward.
  : Goes forward one frame of the video.
- : Shows the previous camera group if there is recorded video in the previous camera group based on the current screen format.
- :Cycles through the screen formats. It cycles through 2x2, 1+7, 3x3, 4x4, 4x5, 5x5 and 1+32.
- : Shows the next camera group if there is recorded video in the next camera group based on the current screen format.
- : Sets up the properties of the player program.



  - Print: Prints the current image.
  - Frame Info.: Displays Channel, Title, Time, Type, Size and Resolution information about the image.
  - Image Processing: Controls brightness, blur and sharpness of playback images. (Single-Screen Format Only)
  - Play Speed Control: Changes the playback speed (Play) or fast forward/ backward playback speed (FF/RW).
  - Drawing Mode: Selects the draw mode level. If you are not sure about the best draw mode level for your system, try each level until the image displays properly.
  - Screen Size: Changes the screen size of the player program.
  - Aspect Ratio: Changes the image aspect ratio displayed on each camera screen.
  - OSD Setup…: Selects options to be displayed on the screen.
  - Enable Audio: Plays audio while playing back recorded video that has recorded audio. (Single-Screen Format Only)
  - Anti-Aliasing Screen: Enhances image display quality on the screen by smoothing stair-stepping (aliasing) effects in the enlarged image. If video plays slow because of your CPU's slow speed, releasing the Anti-Aliasing Screen option might improve playback speed.
- : Saves the current images.

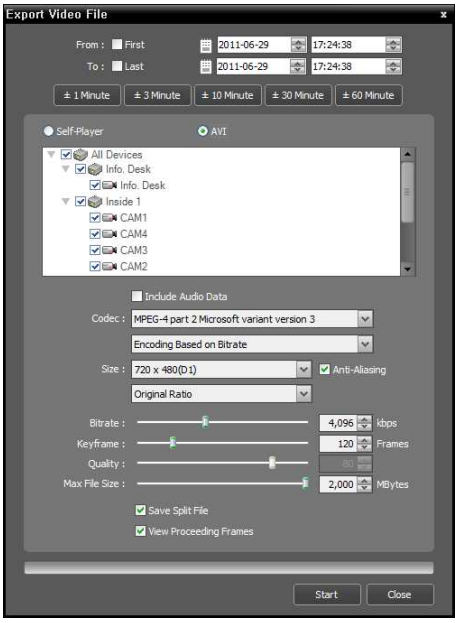


  - Save as Image: Saves the current image as a bitmap or JPEG file.
  - Save as Image (Actual Size): Saves the current image as a bitmap or JPEG file in its actual size. (Single-Screen Format Only)
  - Save as Video: Saves video of desired time range as an AVI file.

- : Selects the image size option to enlarge the image or display the image in its actual size (Single-Screen Format Only). You can move the enlarged image by clicking the left mouse button and dragging.
- : Displays the image in the full screen.
- , : Is displayed at the bottom-right corner of the screen. indicates that the clip file has not been tampered with, and indicates that the system has detected tampering and playback stops.

Exporting as an AVI File

The recorded video is exported as an AVI file (.avi).



- From, To: Enter the date and time of video to export. Selecting First sets the date and time to the date and time of the first available recorded video. Selecting Last sets the date and time to the date and time of the last available recorded video. Clicking the ± 1 Minute, ± 3 Minute, ± 10 Minute, ± 30 Minute or ± 60 Minute button increases or decreases the time by the selected amount from the time selected on the timetable.
- Self-Player, AVI: Select AVI.
- Include Audio Data: Includes audio data when saving video with recorded audio. This option is not available when more than one camera is selected. Audio might not be saved properly when the recording speed is set to less than 1 ips.
- Codec, Bitrate, Quality: Set up the desired values for compressing the file. More codecs including Microsoft MPEG-4 Video Codec will be available without installing any special codec software if you install the executable file in the iNEX Basic\Client\avicodec folder on the hard disk drive where the iNEX program is installed.
  - Encoding Based on Bitrate: Encodes video based on the bitrate. Selecting this option enables the Bitrate setting below.
  - Encoding Based on Video Quality: Encodes video based on the quality. Selecting this option enables the Quality setting below.
- Size: Set up the file size for compressing the file.
  - Original Ratio: Saves images with fitting within the screen size while maintaining their original ratio.
  - Fit to Screen: Saves images with fitting to the screen size regardless of the aspect ratio regardless of the aspect ratio.
  - Fit to Screen (Aspect Ratio): Saves images with fitting to the screen size keeping the aspect ratio. This might cause top and bottom or left and right side of images to be cropped depending on the screen size. This aspect ratio is not supported and Original Ratio is applied for the camera screens that the following function is activated: Image Zoom.
- Anti-Aliasing: Enhances image display quality for all cameras on the screen by eliminating stair-stepping (aliasing) effects in the enlarged image.

- Keyframe: Sets up the keyframe for compressing the file.
- Max. File Size: Sets up the maximum file size.
- ☑ Save Split File: Exports video by creating multiple files of the Max. File Size units set above when the data file reaches the maximum file size. If this option is not selected, it exports only as much as the maximum file size.
- ☑ View Proceeding Frames: Displays a popup window showing the video currently being exported.

Playing AVI File

Run the video player program and open the exported AVI file. If the codec selected during exporting video as an AVI file is not installed, you will need to install the codec manually.

Chapter 8 — Event Handling

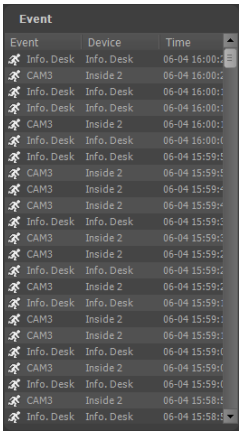
You can monitor video from a camera where an event is detected or play back event-recorded video.

First, check the following and run the Client program.

- Services should be running in the system. Refer to Chapter 3 — Getting Started, 3.1 Running Services (p. 7) for details.
- Devices should be added to a device group. Refer to Chapter 11 — Device Management (p. 71) for details.
- There should be recorded data in the allocated storage. Refer to Chapter 6 — Recording, 6.1 Setting up Recording Storage (p. 39) for details.
- The event detection functions of the device should be enabled in.

8.1 Handling of Live Event

You can monitor live video from a camera where an event is detected or play back event-recorded video if video of the selected event has been recorded.



The event list displays live and callback events from the registered device. The live events are listed only during live monitoring, and the callback events are listed only when the remote callback function is set up in the device.

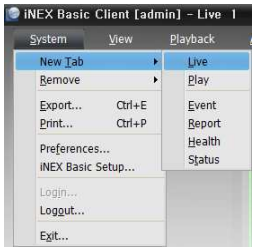
You can change the options of the event list display during Menu – Preference Settings. Refer to Chapter 4 — System Overview, 4.3 Client, Menu – Preference Settings (p. 25) for details.

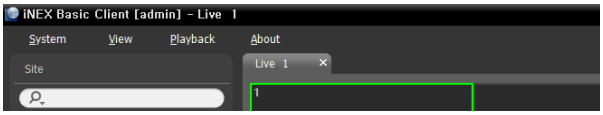
The description of event icons which are displayed in the event list is as follows (some event icons may not be supported, depending on the specifications and version of the device):

- Motion Detection
- Audio Detection
- / Alarm-In On/Off
- System Alive
- / External Storage In/Out
- Video Blind
- Trip-Zone
- / Alarm-In Bad/Good
- System Restart
- Video Loss
- Tampering
- System Boot Up
- System Shut Down

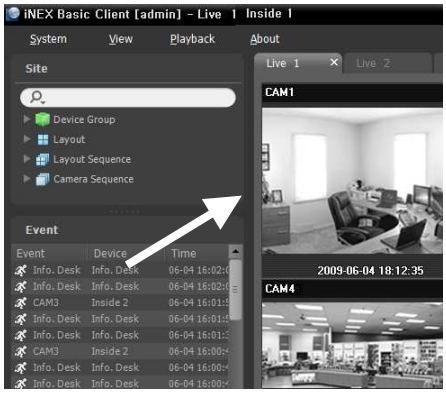
Monitoring Video

Monitoring video from a camera where an event is detected is supported in the Live panel (max. 4). If a Live tab is not on the tab panel, go to the System menu, click New Tab and Live.



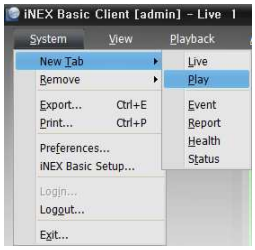


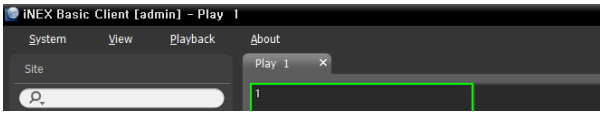
Click the Live tab on the tab panel → Select a desired event from the event list and drag and drop it on the Live screen. Live video from the camera where the selected event occurred is displayed on the screen.



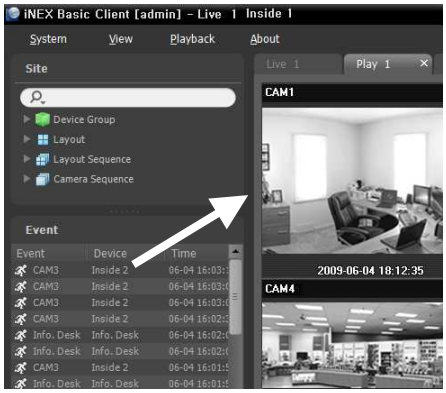
Playing Video

Playing event-recorded video is supported in the Play panel. If the Play tab is not on the tab panel, go to the System menu, click New Tab and Play.





Click the Play tab on the tab panel → Select a desired event from the event list and drag and drop it on the Play screen. The event-recorded video is displayed on the screen.

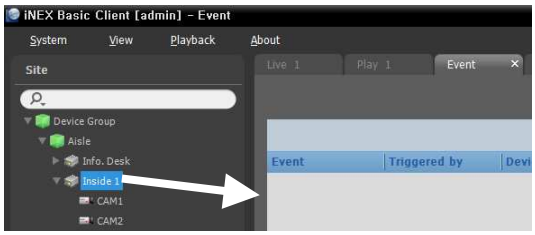


8.2 Handling of Event Recorded Video

You can play back video which is recorded during Event recording.

Playback of event-recorded video is supported in the Event panel. If the Event tab is not on the tab panel, go to the System menu, click New Tab and Event.

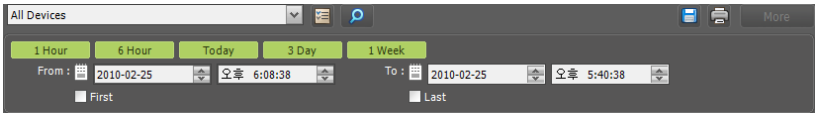
1. Click the Event tab on the tab panel → Select a device or camera to connect to from the Site list, and then drag and drop it on the Event panel. The list of events recorded during Event recording is displayed in the Event panel. Clicking the right mouse button on a column header displays a menu and allows you to sort data as you want.



2. Double click the desired event in the Event panel, the Play panel is displayed and the event video is displayed on the Play screen. Clicking the right mouse button allows you to select a desired Play panel. If other cameras were associated with the Event Recording, recorded video from the associated cameras is displayed together on the screen.

Event Toolbar

The toolbar at the bottom of the panel allows you to search events recorded during Event recording.



- From, To: Set up the date and time of the event to search. Enter the specific date and time or select First or Last. Clicking the 1 Hour, 6 Hour, Today, 3 Day or 1 Week button adjusts the time interval between From and To. Selecting First or Last searches events from the first recorded one or to the last recorded one.
- (Condition): Selects an event type to search.
- (Search): Starts searching event based on the search conditions.
- (Export): Exports the search results as a text file (.txt) or CSV file (.csv).
- (Print): Prints the search results.
- More: Displays more results.

Chapter 9 — System Health & Status Monitoring

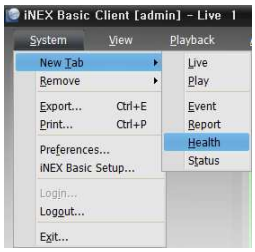
You can simultaneously check the system status and device status of registered devices.

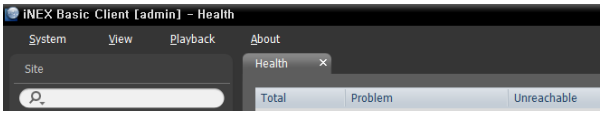
First, check the following and run the Client program.

- Services should be running on the system. Refer to Chapter 3 — Getting Started, 3.1 Running Services (p. 7) for details.
- Devices should be added to a device group. Refer to Chapter 11 — Device Management (p. 71) for details.

9.1 Health Monitoring

System health monitoring is supported in the Health panel. If the Health tab is not on the tab panel, go to the System menu, click New Tab and Health.





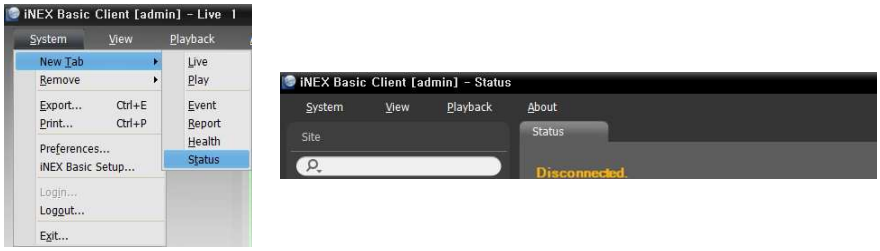
The Client program automatically displays the health monitoring results when the Health tab is added.

① Summary List: Displays the health monitoring status of devices for all device groups in summary.
- Total: Displays the number of devices in all device groups.
- Problem: Displays the number of devices where a problem is detected.
- Unreachable: Displays the number of devices that are not connected.
- Healthy: Displays the number of devices where no problem is detected.

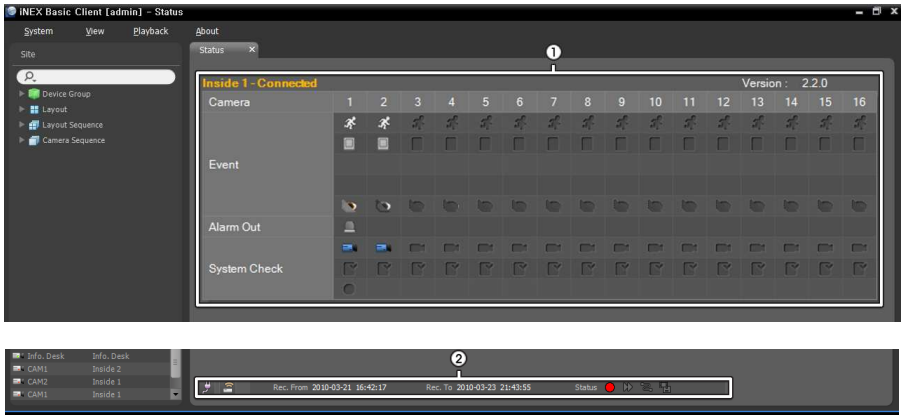
② Detailed List: Displays the status of each device in detail.
- Status: Displays the status (Healthy: No Problem detected, Problem: Video loss is detected or login failed because of the lack of available screens or because the software version is invalid, Unreachable: The device is not connected to the network).
- Device: Displays the device name.
- Model: Displays the device's model name.
- Cameras: Displays the number of cameras supported by the device.
- Problem: Displays details regarding problem.

9.2 Status Monitoring

Device status monitoring is supported in the Status panel. If the Status tab is not on the tab panel, go to the System menu, click New Tab and Status.



Select a device to connect to from the Site list, and drag and drop it on the Status panel. The status of the selected device is displayed.



① Status Display Window: Displays the status as icons.
- Camera: Displays the camera numbers.
- Version: Displays the system version information.
- Event: Displays the status of event detection. When an event is detected, the icon is displayed in corresponding color. Hovering the mouse cursor over an icon displays the event type in a tooltip.
- Alarm Out: Displays status of the alarm-out signals.
- System Check: Displays the function status of the device and recording.

② Function Buttons
- (Disconnect): Disconnects the current connection on the Status panel.
- Rec. From/To: Displays the recording period.
- Status: Displays the status of recording, playback, archiving, exporting of recorded video.

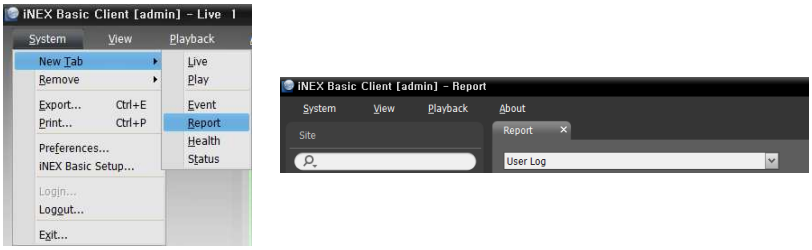
Chapter 10 — Log Search

You can search log entries for the iNEX program and the devices.

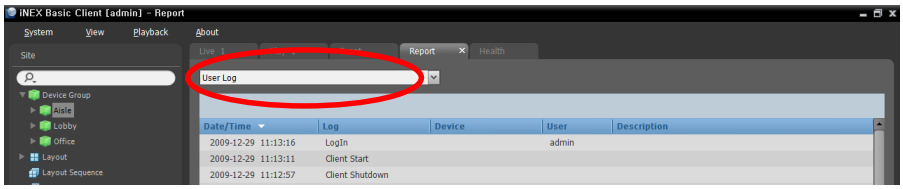
First, check the following and run the Client program.

- Services should be running in the system. Refer to Chapter 3 — Getting Started, 3.1 Running Services (p. 7) for details.
- Devices should be added to a device group. Refer to Chapter 11 — Device Management (p. 71) for details.

Log search is supported in the Report panel. If the Report tab is not on the tab panel, go to the System menu, click New Tab and Report.



The various types of log entries are displayed. Clicking the right mouse button on a column header displays a menu and allows you to sort data as you want.



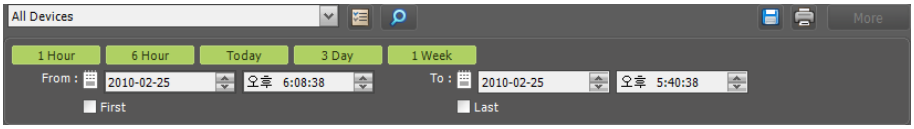
Select a log type to search from the drop-down list.

- User Log: Displays log entries from the Client program.
- Health Log: Displays log entries of the system health monitoring for the registered devices.
- Admin Service Log: Displays log entries from the administration service.
- Recording Service Log: Displays log entries for the recording service.
- Monitoring Service Log: Displays log entries for the monitoring service.
- Device System Log: Displays system log entries from the devices.
- Device Event Log: Displays event log entries from the devices.

If a connection is not made properly, the network disconnection log is displayed. Refer to Appendix – Network Disconnection Log (p. 83) for details.

Report Toolbar

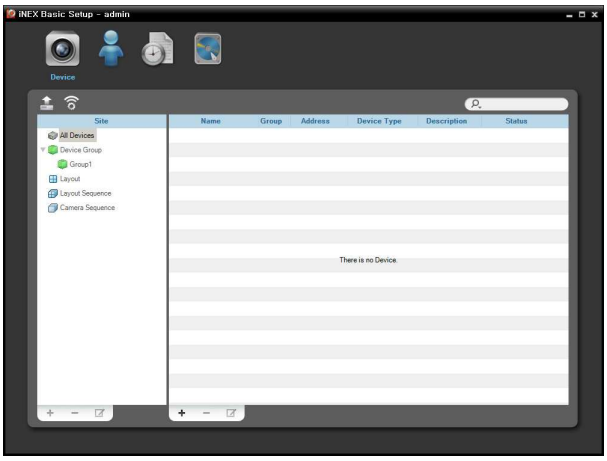
The toolbar at the bottom of the panel allows you to search for the desired log entries.



- From, To: Set up the date and time of the log entry to search. Enter the specific date and time or select First or Last. Clicking the 1 Hour, 6 Hour, Today, 3 Day or 1 Week button adjusts the time interval between From and To. Selecting First or Last searches log entries from the first one or to the last one.
- (Condition): Selects a log type to search.
- (Search): Starts searching log entries based on the search conditions.
- (Export): Exports the search results as a text file (.txt) or CSV file (.csv).
- (Print): Prints the search results.
- More: Displays more results.

Chapter 11 — Device Management

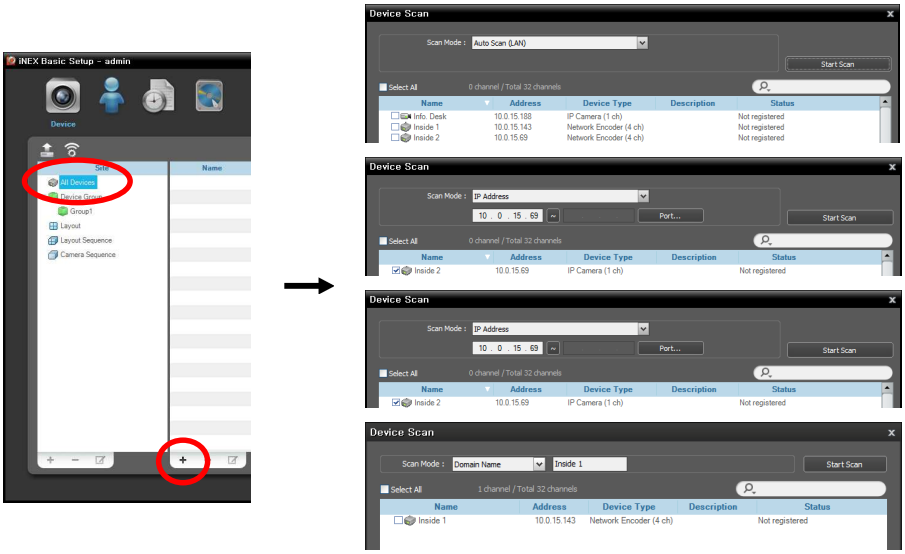
You can edit or delete the device from a list. You can also connect to a device to change its settings or upgrade its software remotely. Go to the Start Menu → Click iNEX Basic → Run the iNEX Basic Setup program → Select the Device menu.



- All Devices: Displays devices registered in the iNEX system. If you delete a device from All Devices, it will not be available to search and play back previously recorded data for the device even though the device is registered again. Refer to 11.1 Registering Devices (p. 71) for details on registering devices.
- Device Group: Displays registered device groups. You can monitor or play back recorded video from the cameras in device groups. You must register devices in the iNEX system and add the devices to a device group to perform any operation. Refer to 11.1 Registering Devices (p. 71) for details on registering device groups.
- Layout: Displays the registered layouts. You can monitor video from multiple cameras in a predefined layout. Refer to Chapter 5 — Live Video Monitoring, 5.1 Monitoring Video, Layout Monitoring (p. 31) for details.
- Layout Sequence: Displays the registered layout sequences. You can monitor video from multiple cameras sequentially in more than one predefined layout. Refer to Chapter 5 — Live Video Monitoring, 5.1 Monitoring Video, Layout Sequence Monitoring (p. 32) for details.
- Camera Sequence: Displays the registered camera sequences. You can monitor video from multiple cameras sequentially in the same camera screen. Refer to Chapter 5 — Live Video Monitoring, 5.1 Monitoring Video, Camera Sequence Monitoring (p. 34) for details.

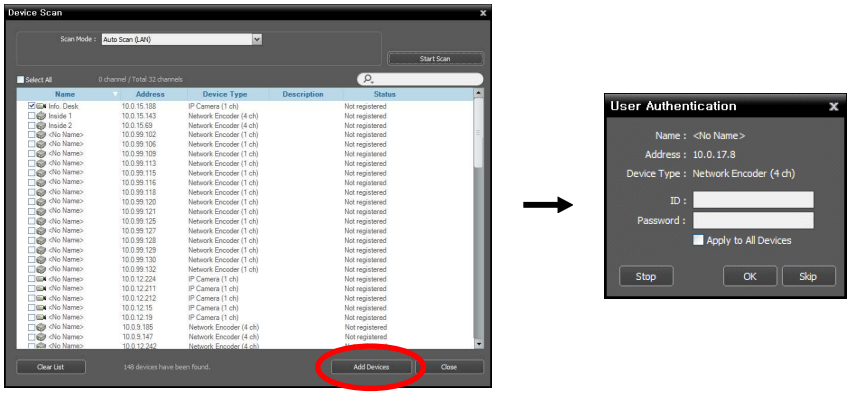
11.1 Registering Devices

1. Click All Devices in the Site panel, and then the ✚ button at the bottom of the Site List panel. The Device Scan window appears.



- Scan Mode: Select the scan mode. Clicking the Start Scan button displays the results in the list. If the IP address range of the device is different from that of the iNEX system, the iNEX program considers the IP address invalid. In this case, you must change the device's IP address to register the device.
  - Auto Scan (LAN): Lists devices in a LAN environment.
  - IP Address: Allows you to enter the IP address of a device. You can search more than one device at a time by entering a range of IP addresses.
  - DVRNS: Allows you to enter the device name registered on a DVRNS server if the device uses the DVR Name Service function.
  - Domain Name: Allows you to enter the device's domain name registered on a DNS server if the device uses the domain name service.
- : Select the devices to register by checking the box beside each device name in the list. Selecting the Select All box selects all devices in the list.

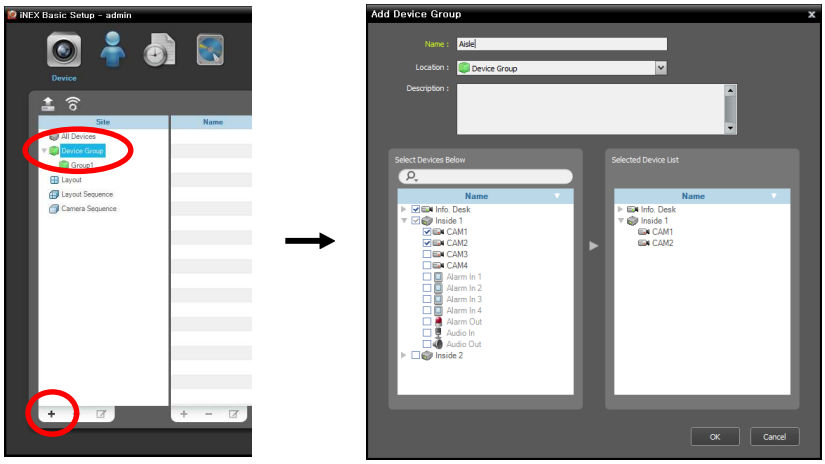
2. Click the Add Devices button at the bottom.



- Name, Address, Device Type: Displays the name, IP address (or mDNS number) and type of the selected device. The name will be updated automatically depending on the settings of the device.
- ID, Password: Enter the user ID and password which you set in the device in order to connect to that device remotely. The connection to the device is allowed only to the users under the Administrator group of the device, and recording is allowed only to the admin user under the Administrator group of the device.
- Apply to All Devices: Select to apply the same user ID and password to all selected devices if you selected more than one device and the selected devises have the same user ID and password.

NOTE: When registering a four-channel network video transmitter, all four cameras are automatically registered even if some of the four cameras are disabled.

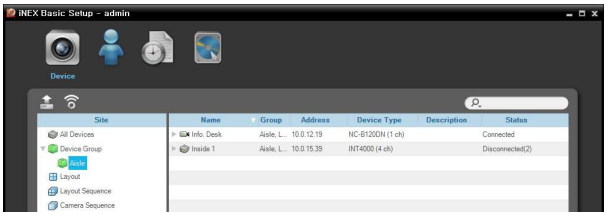
3. Click Device Group in the Site panel, and then the ✚ button at the bottom of the Site panel. The Add Device Group window appears.



- Name: Enter the device group name.
- Location: Select an upper group to which the device group will belong.
- Select Devices Below, Selected Device List: Check the box beside cameras in the left panel, and the selected cameras are added to the right panel.

Clicking the OK button completes the device group registration.

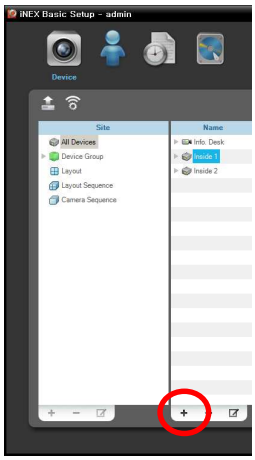
4. Check that the device was added to the device group correctly. Click Device Group in the Site panel and then the arrow button (▶) beside Device Group. Clicking the registered group displays the list of devices added to the device group and connection status in the Site List panel. If the connection was not made properly, the network disconnection log is displayed. Refer to Appendix – Network Disconnection Log (p. 83) for details about the network disconnection log.



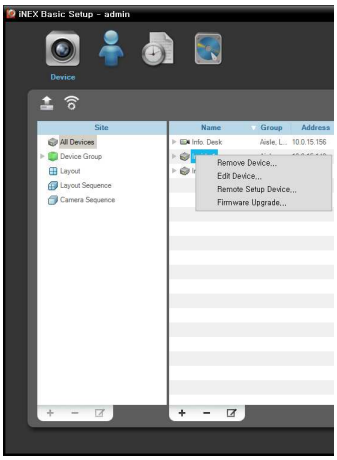
Selecting the registered device group, and then the button at the bottom of the Site panel displays the Edit Device Group window and allows you to edit the selected device group.

11.2 Managing Devices

Click a device group in the Site panel and then click a device in the Site List panel. Clicking the button at the bottom of the Site List panel, or clicking the right mouse button displays the device menu.

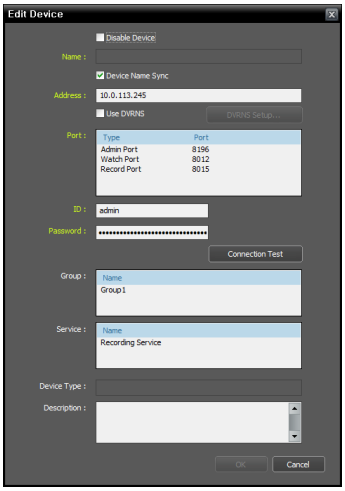


OR



Editing Device Information

Selecting Edit Device from the device menu allows you to change the device information.

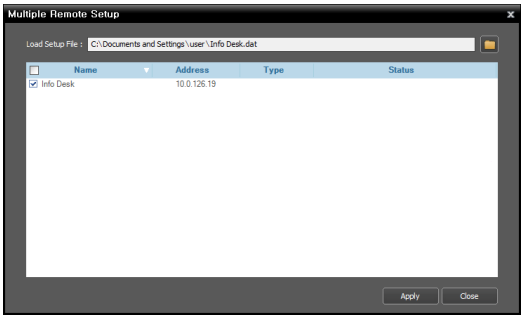


- Name: Edit the device name. You can use the same name for more than one device. By selecting the Disable Device option, the iNEX program no longer considers the device registered in. Selecting Device Name Sync automatically updates the name based on the settings in the device.
- Address: Edit the device's IP address. When the device uses the DVR Name Service function, select the Use DVRNS option and enter the device name instead of its IP address. The device name you enter should match the name set when DVRNS was set up in the device.
- Port: Edit the port numbers. The port numbers you enter should match the port numbers set in the device for remote connection (Admin), remote monitoring (Watch), recording (Record) and two-way audio communication (Audio).
- ID, Password: Edit the user ID and password for the connection to the device.
- Connection Test: Click the button to test the connection to the device with the information set above.
- Group, Service: Displays the list of device groups that the device is registered on and recording services that record video from the device.

Changing Device's Setting Remotely

Selecting Remote Setup Device from the device menu allows you to change the device's settings remotely. Changing the device's settings remotely might not be available for some settings.

You can change settings of several devices at the same time using a setup file. Clicking the (Multiple Remote Setup) button above the Site panel displays the following screen.

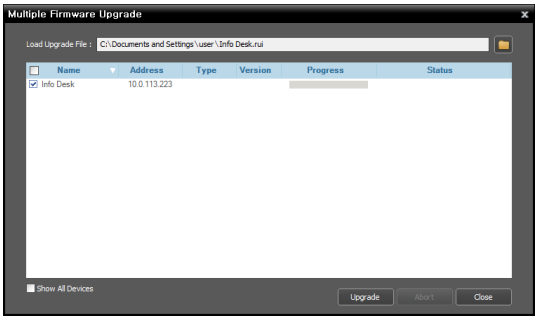


Click the button at the top right corner and select a setup file. The list of available devices is displayed. Select devices and click the Apply button at the bottom to apply the change.

Upgrading Device's Software

If you have an upgrade file, selecting Firmware Upgrade from the device menu allows you to upgrade the device's software.

You can upgrade software of several devices at the same time. Clicking the (Multiple Firmware Upgrade) button above the Site panel displays the following screen.



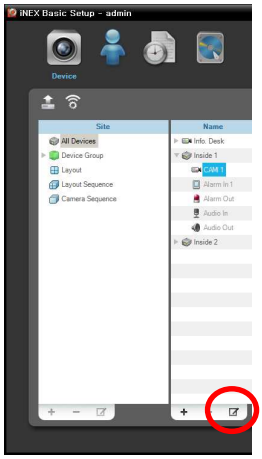
Click the button at the top right corner and select an upgrade file. The list of available devices is displayed. Selecting Show all devices displays all registered devices. Select devices and click the Upgrade button at the bottom to start upgrading.

Checking Device Status

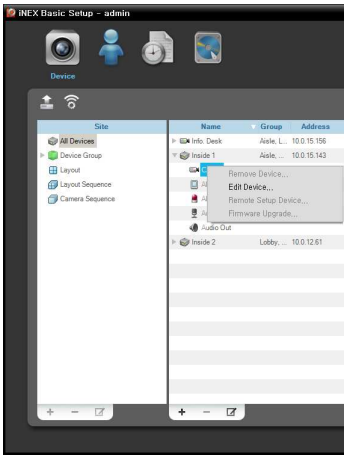
Click All Devices in the Site panel and then a device in the Site List panel. The device status is displayed in the Recording Status field (Connected: Recording is available, Disconnected: Recording is not available). Clicking the arrow button ( ) beside each device name displays the list of inputs and outputs supported by the device. You can check the input and output device's status (Record: During recording in the Time-Lapse Recording or Event-Based Recording mode, Panic: During recording in the Instant Recording mode, Idle: Ready to record).

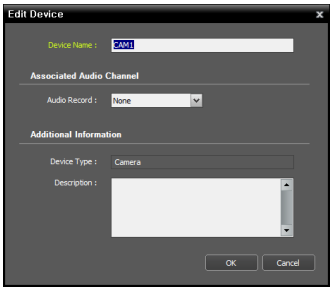
Editing Input/Output Device Information

Click All Devices in the Site panel and then the arrow button ( ) beside each device name in the Site List panel. Click the input/output device in the list of video in, alarm in/out and audio in/out supported by the device. Clicking the button at the bottom of the Site List panel, or clicking the right mouse button and selecting Edit Device from the menu displays the Edit Device window.



OR

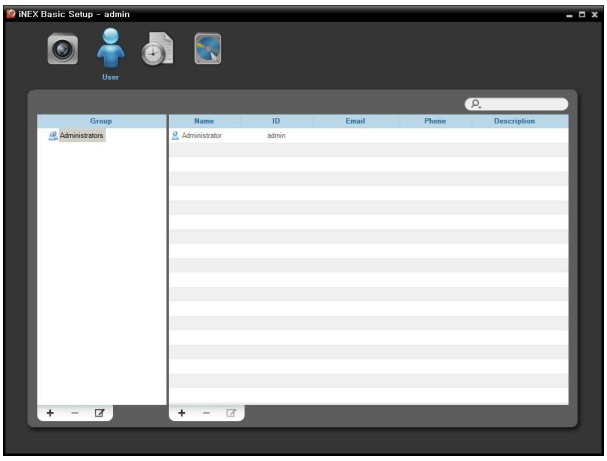




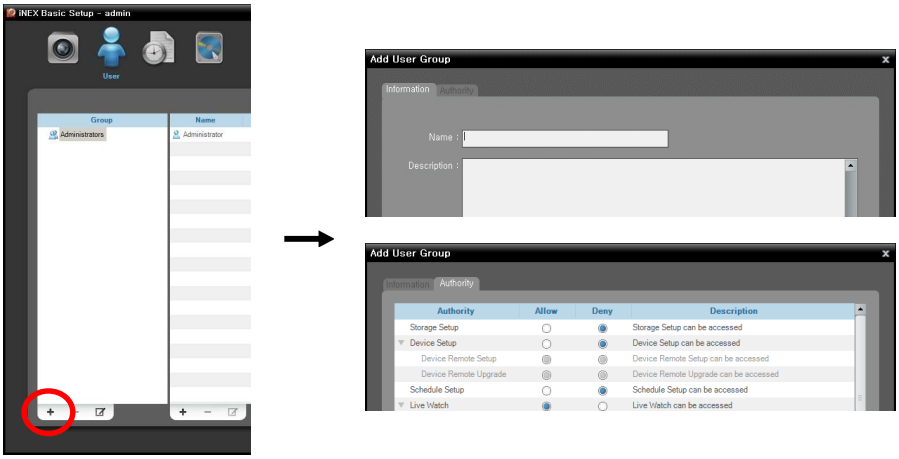
- Device Name: Edit the name of the input/output device. You can use the same name for more than one input/output device. The name will be updated automatically when the name of the device to which the input/output device is connected is updated.
- Associated Audio Channel: Select the audio channel to associate with the camera for audio recording (supported only for a camera). The selected audio channel will be recorded when video from the camera is recorded.
- Associated Device: Select a camera channel to associate with the alarm-in or audio-in device for display on the event spot screen (supported only for an alarm-in or audio-in device). Video from the selected camera channel will be displayed on the event spot screen when an alarm-in or audio-in event is detected.

Chapter 12 — User Management

You can assign every user different authority levels for each function of the iNEX program. The Administrators group has authority for all functions, and the authority settings are not editable. Go to the Start Menu → Click iNEX Basic → Run the iNEX Basic Setup program → Select the User menu.



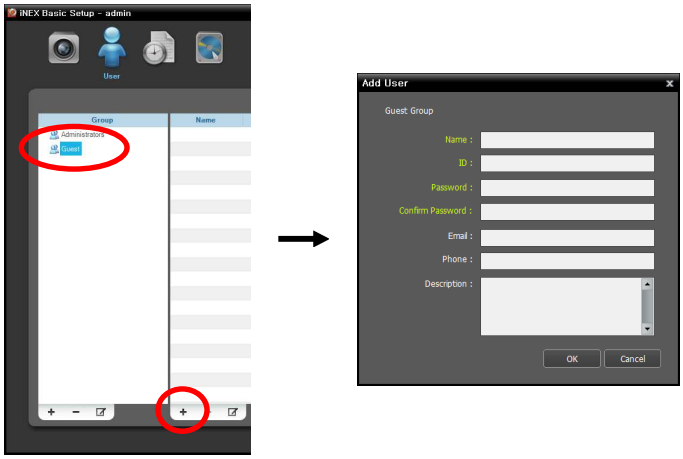
1. Click the ✚ button at the bottom of the user group list. The Add User Group window appears.



- Information tab: Enter the user group name.
- Authority tab: Grant or limit authority for each function.

Clicking the OK button completes registration of the user group.

2. Click the added user group in the Group list, and then the ✚ button at the bottom of the user list. The Add User window appears.



- Name: Enter the user name.
- ID, Password, Confirm: Enter a unique user ID and password (four to 32 characters without spaces) for access to the iNEX program.
- E-Mail, Phone, Description: Enter the email address, telephone number and description of the user if you want. An email address must include the "@" character to be a valid address, and only numbers and "–" are allowed when entering a telephone number.

Click the OK button at the bottom.

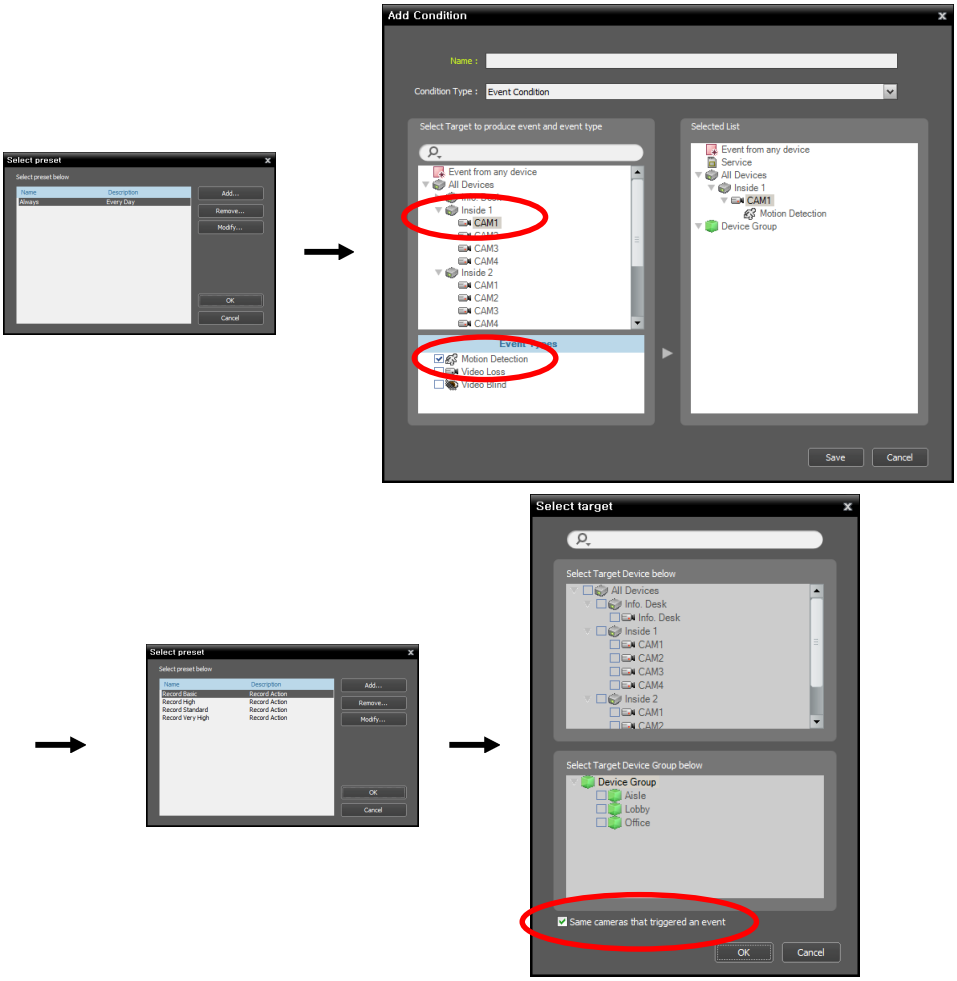
3. Clicking the registered user group or a user in the list, and then the button at the bottom allows you to edit the information.

Appendix

Schedule Setup Example of Event Recording Mode

Example I

If motion detection events are detected at camera 1 of the Inside 1 device, and you want to record video from that camera, set up as following:



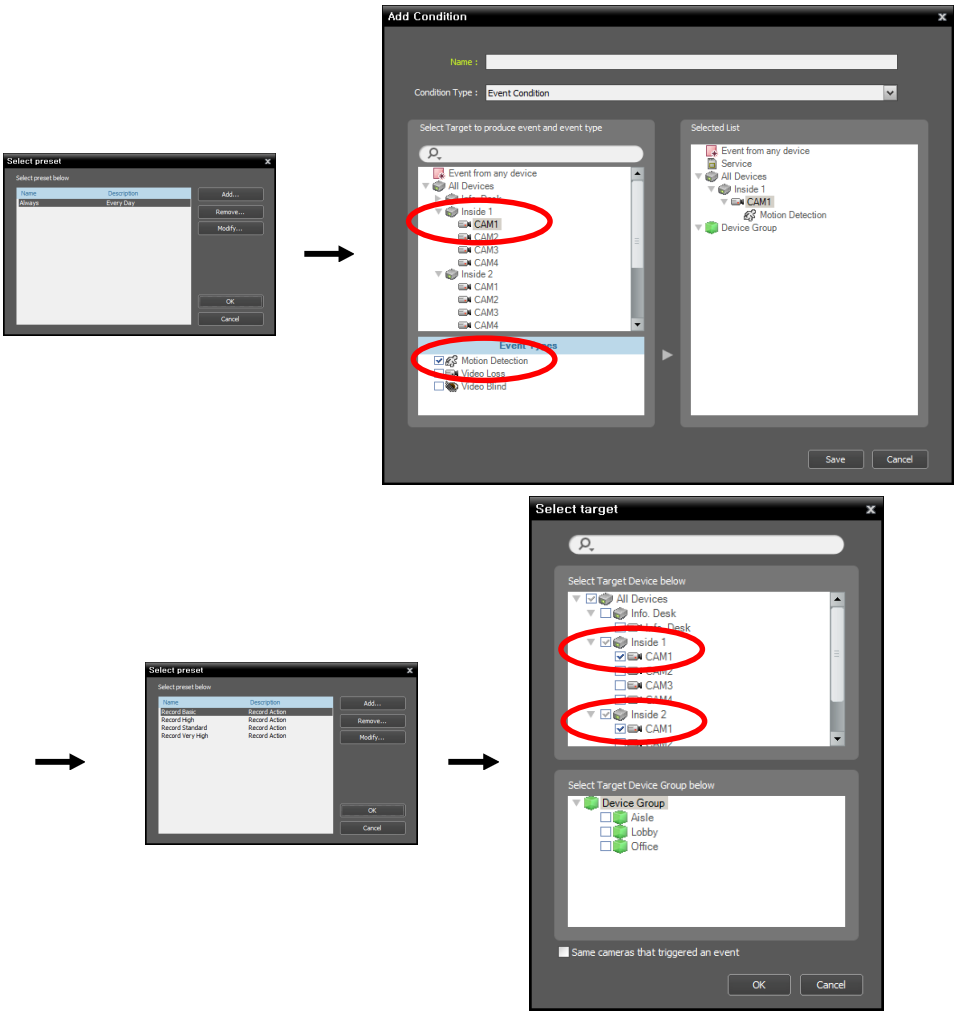
- Time Coverage preset: Select the Always preset.
- Condition preset
  - Condition Type: Select Event Condition.

- Select Target to produce event and event type: Select All Devices, Inside 1, and CAM1 in order.
- Event Types: Select Motion Detection.

- Action preset: Select a desired recording setting.
- Target preset: Select the Same cameras that triggered an event option.

Example II

If motion detection events are detected at camera 1 of the Inside 1 device, and you want to record video from that camera and camera 1 of the Inside 2 device, set up as following:



- Time Coverage preset: Select the Always preset.
- Condition preset
  - Condition Type: Select Event Condition.
  - Select Target to produce event and event type: Select All Devices, Inside 1, and CAM1 in order.
  - Event Types: Select Motion Detection.
- Action preset: Select a desired recording setting.
- Target preset: Release the Same cameras that triggered an event option → Select CAM1 of the Inside 1 device and CAM1 of the Inside 2 device from the All Devices list.

OSD Information

The OSD (On Screen Display) is displayed in each camera screen in the Live screen of the Client program.

- Camera Title: Indicates the camera name set in the iNEX program (upper left corner of the screen).
- (Listen or Talk): Indicates the iNEX system can receive audio from or sends audio to the device (upper right corner of the screen).
- (PTZ): Indicates PTZ control is enabled (upper right corner of the screen).
- (Camera Sequence): Indicates the cameras are being sequenced (upper right corner of the screen).
- (Red: Is displayed during recording in Time-Lapse Recording or Event-Based Recording mode), (Orange: Is displayed during recording in Instant Recording mode): Indicates video is being recorded (upper right corner of the screen).
- (Zoom In): Indicates video is zoomed in (upper right corner of the screen).
- Date, Time: Indicates the date or time of the iNEX system (bottom of the screen).
- Event Alert: Indicates an event is detected (highlights the camera title bar in red).
- Motion Block: Indicates a motion event detected in the boxed area (on image) (supported only for network video transmitters).

Network Disconnection Log

ID	Explanation
0	Unknown error.
1	Logout.
2	All channels of the device are being used.
3	Invalid product version.
4	Invalid user ID or password.
10	No device is running.
11	Network is down.
12	Cannot reach the device's network.
13	Connection timeout.
16	No route is found to the device.
20	Connection is cancelled.

Troubleshooting

Problem	Possible Resolutior
Monitoring is not available.	• Check that devices have been added to a device group. • Check that you have authority for monitoring.
No live video.	• Check the camera connections in the device. • Video display might lag because of the system or network congestion.
Two-way audio communication is not available.	• Check the speaker and microphone connections in the device and the iNEX system. • Check the audio input and output settings of the device. • Two-way audio communication is one-to-one communication. If the device is already in audio communication with another system, try again when the other audio communication is disconnected.
Recording is not available.	• Check that storage is allocated and a recording schedule is set up. • Check the device registration information. The recording function is supported only for a device registered as admin user. • Check the recording status of the device. If the same device is registered on another iNEX system, only the first iNEX system that is connected to the device records video. Once a iNEX system connects to the device, other iNEX systems will not record video from the device unless the connection of the first iNEX system is released. Delete the device registration or disable the device in the other iNEX system to record video in the current iNEX system.
Recording OSD is not displayed.	The recording OSD might be displayed later or for longer than the scheduled time because of the recording delays caused by system congestion.
Cannot operate the iNEX program because of wrong ID and password.	• Run the SecretKey program (Go to the Start Menu → Click iNEX Basic and then Utility). When you provide the result to your dealer or distributor, you will receive a new user ID and password. • Uninstall and reinstall the iNEX program. You must delete all saved data, and the deleted data cannot be restored.

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